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Welcome to the 5th edition of the Hub newsletter.

It contains exciting news about the Hub’s growing achievement of collaborations and funding successes, and features some of the people in the University and the NHS who are playing an important role in building the Hub’s national reputation.

This newsletter also provides information about how links between the Health Industry sector and Hub partners are increasing. We shall feature this topic regularly in future newsletters, since we anticipate continuing expansion in this aspect of the Hub’s activities.

As the impact of the Hub continues to grow, colleagues in other parts of the country have been seeking our advice as they plan to set up similar models in their local settings. Like us, they see the Hub as being an excellent way of generating high-quality, locally-led research and innovation, and of facilitating knowledge exchange to support these and other aspects of cross-sectoral partnership between local organisations.

Over the coming months, the introduction of the Local Clinical Research Network (LCRN) and the Academic Health Science Network (AHSN) will provide a significant impetus to further enhance the delivery of research and innovation respectively within the NHS. The Hub’s growing success and profile as an engine for generating locally-led collaborative research and innovation will provide us with an excellent opportunity to participate in and benefit from these developments.

By building upon the foundations which have already been laid, and by working collectively and collaboratively, the Hub offers a very exciting and powerful platform for advancing collaborative research and innovation within all its partner organisations.

Professor John Goodacre
Director, Lancashire and Cumbria Clinical Research Hub

About Lancashire & Cumbria Clinical Research Hub

Aims
The Hub was established in 2010 to enable an increase in NHS/University collaborative research in health and medicine across Lancashire and Cumbria. This includes working with NHS partner Trusts across the region as well as with other key organisations.

Location
The Hub operates on a ‘hub and spoke’ model, so technically it is not focused on a single location. The administrative hub is based at Lancaster University with NHS partner organisations distributed across the North West.

Associate Director of Clinical Research
Strategic operation of the Hub involves close liaison and coordination between the Associate Director of Clinical Research at Lancaster, Dr Sally Spencer, and R&D Directors and Managers in the partner NHS Trusts.

Joining the Hub
If you would like an opportunity to discuss how your organisation may benefit from Hub membership, please contact Dr Many Dixon, Clinical Research Hub Manager.

Working with the Hub
We welcome opportunities to work with other organisations. If you would like to develop links with the Clinical Research Hub, please contact our administrator.
**Funding success for Hub Partners**

**‘Noisy knees’ - new medical device to detect knee osteoarthritis**

Hub partners and colleagues in other organisations in the North West, led by Professor John Goodacre at Lancaster University, have been awarded £560,000 by the Medical Research Council to develop a medical device to identify osteoarthritis in the knee using sound waves. The technique involves attaching microphones to the knees, enabling high frequency sounds to be measured as patients stand up. The aim is to develop a portable device to be used by GPs, hospital doctors and nurses to assess patients with knee osteoarthritis regularly to see whether the knee is changing or responding to treatment. The work has been developed in collaboration with Professor Shark at UCLan, Professor Diggle at Lancaster, and Professor Waterton and Dr Bowes at Manchester University.

Professor Goodacre said, “This work is very exciting because it involves scientists and clinicians from several different disciplines and sectors working together as a team to develop an entirely new approach. Potentially, this could transform the ways in which knee osteoarthritis is assessed and treated”.

**Potential New Marker for Autism**

The Hub supported development of a biomedical physics study to investigate a new marker for autism spectrum disorder in children. The team is led by Professors Aneta Stefanovska and Peter McClintock from Lancaster University in conjunction with colleagues at Blackpool Teaching Hospitals NHS Foundation Trust and uses an innovative technique based on the nonlinear analysis of EEG waves. The study received £152k of funding, including £79k from Action Medical Research.

“These awards represent the latest funding success for the Hub and take our total research income to over £1.2 million since our launch in October 2010. We look forward to building on this success in the future by consolidating the role of the Hub as a platform for leading world-class research in healthcare.” Dr Sally Spencer, Associate Director of Clinical Research
Collaborative Partnerships stakeholders develop future strategy

On Monday 10th June the Collaborative Partnerships initiative, including the Clinical Research Hub core team and members of the Centre for Training and Development, joined staff from our 6 NHS Partner Trusts and industry colleagues from Bionow to develop future strategy. The Forrest Hills conference venue provided an unusual and attractive setting for our diverse group of stakeholders to discuss progress of the cross-sectoral initiative, and to identify strategies for sustaining, enabling and stimulating future growth. The workshop also provided an informal context for networking opportunities and allowing us all to get to know each other a little better. The day was both productive and enjoyable and we look forward to embedding the strategy in the work of the partnership.

Clinical trials template workshop

Research and Development managers and research support staff from our NHS Partner Trusts attended a workshop, together with core Hub staff and Julia Reynolds from the Cumbria and Lancashire CLRN, to formulate a clinical trials development template. Scientific rationale for good quality clinical trial design is already established, for example through the EQUATOR Network. The purpose of the workshop was to develop a template to support relatively inexperienced staff in the development clinical trials. The process will be supported by R&D staff within the Trusts, with recommendations for full Hub support, in terms of identifying funding opportunities, where appropriate. The template will be ratified by NHS Partners prior to adoption across the Hub network.

Identifying research priorities through the James Lind Alliance

The James Lind Alliance identifies priorities for new research based on uncertainties which patients, carers and clinicians agree are the most important issues in need of further investigation. This very careful, systematic process produces lists of priority topics and we would encourage all Hub members to take this into account in the early stages of planning new collaborative research – this information is accessible via http://www.lindalliance.org/top-tens.asp The James Lind Alliance works in partnership with the National Institute for Health Research.

Dr Steve Milan has recently joined the Hub as our new Project Development Manager, to support the development of collaborative projects with NHS partners and Lancaster University. Steve read psychology at University College London and completed his DPhil at St Johns College Oxford on children’s perception and understanding of time.

Steve has been involved with the Cochrane Collaboration since 1994; he is an editor with the Cochrane Developmental, Psychosocial and Learning Problems Group, and an author with several groups and he has authored 18 Cochrane systematic reviews. From 2002 to 2010 he was the lead for clinical effectiveness at St Georges Healthcare NHS Trust in London.

Clare King
Hub Research Support Officer
Clare worked in the International Office at Lancaster University before taking a break to have a family. Now back at the University working at the Hub and very much looking forward to working with the team and the Trust partners.

Cliff Shelton, Academic Clinical Fellow
Cliff is a Specialty Registrar in Anaesthesia and was appointed to an NIHR Academic Clinical Fellowship in August 2013. This post forms part of Integrated Academic Training, in which junior doctors are supported to develop research skills in parallel to their clinical training. It is the intention that this experience will form the basis of an application for higher academic training such as an MD or PhD.

Cliff’s academic background is in medical education, having previously worked as a Clinical Teaching Fellow at Keele University Medical School. During this post he developed an interest in educational techniques to enhance patient safety, focusing on the assessment of situation awareness in the simulated critical illness setting. His current post, supervised by Dr Maggie Mort and Professor Andrew Smith of the Lancaster Patient Safety Research Unit continues this patient safety theme.

For six months, from May to November 2013, Cliff will be based at Lancaster University School of Medicine. During this time he will undertake an observational research project examining the use of ultrasound in the guidance of medical procedures. In addition to this, he will receive formal research training through the faculties’ Postgraduate Certificate in Clinical Research.

Integrated Academic Training is not without it’s challenges and compromises; in addition to developing as a medical academic, Cliff will need to maintain his clinical competences and complete his postgraduate exams whilst in post at Lancaster. Whilst these different elements may compete with one another on occasion, they are often synergistic and represent one of the strengths of training as an Academic Clinical Fellow.

Cliff hopes to use his time at Lancaster to complete a pilot study from which to develop a doctoral project. In addition, he would like to continue to develop his interest in medical education and looks forward to the opportunities that working in the School of Medicine present.
Interested in progressing your research career? Enhance your CV with a

**Postgraduate Certificate in Clinical Research**
from one of the UK’s top universities

We are enrolling now for our part-time Postgraduate Certificate in Clinical Research which starts in November. The course will support the development of advanced knowledge and skills in clinical research. Lively and interactive sessions are delivered by a supportive team tutor. You can complete the course over a 9 month period and then you can progress to gain an MSc in Clinical Research.

**Postgraduate Certificate overview:**

- Module 1: Essential tools for clinical research
- Module 2: Governance and management of clinical research (upon successful completion of this module you will be awarded an NIHR CRN Good Clinical Practice Certificate)
- Module 3: Turning research into healthcare policy and practice

If your Trust is a member of The Clinical Research Hub and funds your place then you are entitled to a 10% discount on course fees. Funding 2 places attracts a 15% discount.

**What our students say:**

"I have found this course to be an excellent grounding in the methods that I am now applying in my research post. It has a practical emphasis and equips the learner to conduct research in the real world. I would recommend the Postgraduate Certificate to anyone, clinical or non-clinical, who is planning on taking their first steps into healthcare research”.

Dr Cliff Shelton, Academic Clinical Fellow / Specialty Registrar in Anaesthesia

“I have only been in post for 18 months so this course was an excellent option for me. The tutors are supportive and always ‘on tap’ for advice/guidance as and when needed. The course has given me the support I needed academically and the flexibility needed for me to deliver”. Michaela Thomson, Research Practitioner

To find out more email: Dr Sally Spencer or call 01524 593734
Bionow is an award winning business development and services organisation serving a vibrant network of almost 1000 biomedical companies across the North of England, which together generate a GVA of £10.8b and employ 38,000 people. Bionow’s mission is to support the growth and sustainability of this sector in the North of England through networking, engagement and product/service savings.

Bionow is committed to providing high-quality services for our members that add tangible value to their operations and growth prospects. Our core members are early-stage young firms and established growth-oriented businesses in the biomedical and life sciences sectors spanning biotech, pharmaceutical, healthcare and medical devices while our supplier members span all areas of the specialist supply chain.

Our University Sponsors include the University of Manchester, University of Liverpool, Lancaster University and the University of Sunderland and we are working with these universities to support their collaborative research programs impact through connecting them to innovative companies across the northern network. Bionow’s corporate patron is AstraZeneca and we are working closely with AstraZeneca to develop the new BioHub at Alderley Park.

Bionow includes a number of NHS Trusts among its Members and there are increasing opportunities to connect businesses, the Universities and the NHS to deliver translational research benefit in health.

Our core income is derived solely from membership and sponsorship, together with events and some specialist consultancy. This provides a very clear focus on the needs of our members and sponsors and how we can collectively build and access shared value in our not-for-profit business model. We add significant value to our members through a range of specialist services, expert guidance and knowledge sharing.

- saving you money
- saving you time
- accessing the right people at the right time

Geoff Davison, CEO is a Board Member of the Academy of Pharmaceutical Sciences and joined Bionow in 2007. Prior to this Geoff was founder and Technical Director of Biorite Ltd and Advanced Biomedical Ltd both spin-out companies from the University of Manchester. Geoff has a degree in Biochemistry and a PhD from the School of Pharmacy, University of Manchester where he began his career undertaking postdoctoral research.

Diane Cresswell, Executive Director of Business Development joined the Bionow team in February 2006 when she managed a formal programme of strategic relationship management with the major companies in the sector. Diane has a BSc (Hons) degree and PhD in Physics from the University of Liverpool and a strong background in technical manufacturing and operational management.

To find out more about the benefits of Bionow membership visit www.bionow.co.uk
Do you work with a company on a research/innovation idea that needs funding?

There are several funding opportunities which are only available to Industry. A few examples are listed below. Contact your R&D Department or the Clinical Research Hub as early as possible:

**Technology Strategy Board:**

**Record £440 million budget to support innovative companies**

The Technology Strategy Board, the UK’s innovation agency, has a record £440 million budget this year to support innovative businesses and drive growth across the UK. Universities and Science Minister David Willetts confirmed that the funding boost which represents an increase of more than £50 million on last year. Technology areas that will benefit from the investment include renewable energy, future cities, advanced materials, satellites, digital technologies and

**The North West Fund for Biomedical**

The North West Fund for Biomedical, managed by SPARK Impact, has now invested more than £10 million in SMEs across a range of biomedical areas including pharmaceuticals, medical devices and diagnostics. Two recent investments of £125,000 in back therapy device company LumbaCurve and £250,000 in Oxtox, which has developed a drug detection device intended for use by police officers, have seen the fund reach this latest milestone, just two years after its launch in December 2010. The North West Fund has also recently lured a pioneering medical device developer from Oxford. Cerus Endovascular will be relocating to Liverpool Science Park after agreeing a £600,000 investment from the North West Fund for Biomedical. The company has developed a minimally invasive implantable medical device for treating intra-cranial aneurysms. The funding will be used to help initiate product development and to fund more in-depth clinical trials.

**The Regional Growth Fund**

Round 4 of the Regional Growth Fund has recently closed but should reopen next year. The Regional Growth Fund, with around £350 million available, has already helped 180 projects get started, creating and safeguarding local jobs and attracting significant private sector investment.

**The Social Incubator North fund - entrepreneurs invited to pitch to new £2m incubator fund**

A new £2m incubator fund designed to unlock northern business talent has been launched. Budding entrepreneurs from across the North are invited to apply for Social Incubator North, of which it hopes to create 60 new investment ready businesses. Successful applicants will receive up to £25,000 of investment and 80 hours of tailored one-to-one business support. To apply to the Social Incubator North or find out more, visit [www.socialincubatornorth.org.uk](http://www.socialincubatornorth.org.uk).

**EVENTS:**

**Triple Helix International Conference 2013**
London, UK,
Bringing businesses, universities and governments together to co-innovate and solve economic, social and technological challenges

**2013 BioCap Conference, Wednesday 18th September**
Venue: Hilton Hotel, Deansgate, Manchester
BioCap is the only specialist life science investment and showcase conference in the North of England. Bringing together international investors and companies both seeking finance and with a track record of raising finance, this conference is aimed at highlighting the wealth of life science investment opportunities in the North of England. For further information on sponsorship opportunities and to book delegate tickets, please contact Helen Williams on 07714 168020 or email helen.williams@bionow.co.uk.

**Regener8 Annual Conference, Thursday 19th October**
Venue: Royal Armouries Museum, Armouries Drive, Leeds, LS10 1LT
The Regener8 Annual Conference is a one-day meeting with a focus on the translation and commercialisation of regenerative therapies. The theme for 2013 will be focussed around “Translating regenerative therapies to a global market”. There will also be presentations and a panel discussion about commercialising regenerative therapies from the perspectives of different sized companies. For more information about tickets, exhibition packages and posters, visit the Regener8 website [http://www.regener8.ac.uk/events/annual-conference/](http://www.regener8.ac.uk/events/annual-conference/).
Heart Patients may benefit from Aviation Industry Technology applied to Healthcare

2012 saw the development of new technology for healthcare based on an aviation security system designed to give pilots maximum information about the health of their aircraft and advance warning of problems.

Science and Technology aviation security expert Professor Garik Markarian drew upon his years of experience to develop a real-time patient monitoring and risk prediction system, similar to those used by pilots to monitor the safety of their aircraft.

Professor Markarian said “There are a lot of parallels between flying an aircraft and observing a critically ill patient. Both the surgeon and the pilot are dealing with a lot of information coming from a variety of sensors. They both need to know not only what is happening now but what might happen in the future and safety is absolutely critical.

When a patient is critically ill or recovering from surgery, doctors monitor the patient’s blood pressure, temperature pulse and other vital signs very closely but have to rely on their experience to predict what is likely to happen next. Pilots have the additional benefit of tools to help them do that.

This new tool has the potential to give doctors an extra layer of intelligence to draw upon.”

A team from the academic surgery unit at University Hospital of South Manchester led by Professor Charles McCollum collaborated with science and technology researchers to develop this new technology.

The new tool has been designed to make sense of a diverse range of patient data to provide health care professionals with a clearer indication of what might happen to their patients in the near future, buying them precious time to take preventative action. Doctors can then potentially access this information at any time, even from home on their laptop or phone. Professor Charles McCollum said “This collaboration with Lancaster University has enormous potential to really benefit patients.

For more information contact Nick King, Business Development Manager, Lancaster University
Tel: +44 (0)1524 510447
Email: n.king@lancaster.ac.uk

Lancaster University Works With Industry on Medical Devices

New Medical Device for Eye Injections

This year a new medical device for eye injections was developed through collaborative work, part financed by the European Regional Development Fund and delivered as part of the support for design and rapid manufacturing project (SusDRaM), which enables northwest based small and medium enterprises to trial additive manufacturing technologies.

AmDel Limited is a Liverpool based business that employs seven people and was established in 2004. They work closely with the NHS and provide medical devices to the UK and Ireland healthcare markets, such as ophthalmic devices.

Some medical procedures require injection directly into the eye, using a speculum that keeps the eye open and makes use of an indicator to correctly locate and administer an injection directly into the eye. Hundreds of thousands of these procedures are conducted every year in the UK alone, and the current equipment for this operation consists of a spring operated metal speculum and a separate injection indicator guide. All parts have to be manufactured, sterilised, packaged, transported and stored and are only used once then discarded.

AmDel Limited wanted to improve this process by developing a simple moulding that would do all necessary functions in one easy to manufacture device, an “optical speculum”. Science and Technology’s Advanced Manufacturing team at the university assisted in the development of this device through a student project. Currently there are 30 rapid prototype fabricated sterile prototypes awaiting clinical assessment to provide final feedback prior to ordering full manufacturing tooling.

In June 2012, the company also worked with the Advanced Manufacturing team to generate another student project which engaged four masters-level undergraduates from the Department of Engineering. The team had to optimize an existing device for manufacture, an Arterial Connector, by modifying the current design based on feedback from surgeons. The Arterial Connector was granted its European Patent and is now under construction ready for launch in May 2013. The project was supervised by Dr Allan Rennie.

“Our current engineering staff were involved in product development as a priority. If not for the university the projects progress could have been delayed for a number of months. Once introduced, the potential benefits of both products will be significant because of the patent protection and increased patient safety; there is nothing similar on the market. It will help increase turnover and win us new business. This new business will be from hospitals that have patient safety upper most in their mind, do not wish to waste materials, who wish to save money and who do not wish to squander material resources.” James Lyon, Managing Director, AmDel Limited

For more information contact Dr Mark Rushforth, Head of Business Partnerships and Enterprise, Physical Sciences, Lancaster University Tel: +44 (0)7964 921891 Email: m.rushforth@lancaster.ac.uk
Dr Heather Iles-Smith

Research & Innovation Lead

Heather joined Lancashire Care NHS Foundation Trust as the Research and Innovation Lead in April 2013. Her role encompasses research governance, capacity building and strategic direction of the research and innovation services.

A passion for research led Heather to establish over 20 years’ experience of conducting, coordinating and managing clinical research. Having worked at Central Manchester University Hospitals Trust for 17 years as a clinical research nurse, a Research Coordinator, Research Team Leader and Lead Research Practitioner, she has developed a breadth of research knowledge and experience. In particular she has extensive expertise in developing research services and of working with Commercial sponsors.

Through a keen interest in education Heather worked part time as a Teaching Fellow on the Undergraduate Nursing programme at the University of Manchester. This was an excellent opportunity to help strengthen the relationship between clinical practice, research and education. Heather is a strong supporter of developing individuals and service capability to prepare the NHS for the challenges ahead and in this respect is committed to building research and innovation capacity.

Additionally, Heather has a strong research interest as both a Principal Investigator for portfolio studies and conducting her own research. In October 2001 she gained an MSc in Research and in March 2012 successfully completed her PhD.

Heather’s research interests include the psychological health of patients with physical illnesses such as cardiovascular disease. She has been awarded a number of competitive grants, is a published author and a reviewer of a number of healthcare journals. Additionally she is an experienced presenter in a number of arenas including a nationally and internationally invited speaker.

If you would like to contact Heather please email heather.iles-smith@lcft.nhs.uk or telephone 07507 847609 or contact the Research and Development team on 01772 773498
Lancashire Teaching Hospitals Innovation Pathway Consultation Event

On 28th February, Lancashire Teaching Hospitals NHS Foundation (LTHTr) hosted a consultation event to gain feedback on a proposed innovation Pathway, aimed at helping Trust staff and external industry and academic partners get their innovative ideas adopted into practice. In line with national guidance and local strategies we are developing our processes and infrastructure to work with industry in both industrial and LTHTr led innovations. Representatives from the Trust, NICE, NIHR, and some small medium enterprise biotech companies attended. Prof Tony Gatrell and Prof John Goodacre attended on behalf of Lancaster University.

After a brief introduction from Chief Executive Karen Partington, Gemma Whiteley, Head of Research and Innovation presented the pathway, providing some examples of how both an LTHTr led and an industry led innovation would pass through the pathway from initial idea to adoption. There followed an open discussion of the pathway. Some important issues were raised that we need to consider in terms of how a product may impact on commissioning and the communication issues between the NHS and industry. Everyone was very positive about the steps we have already taken in starting the dialogue and in making steps to understand and work together.

Following the discussion, Matthew Chapman, Project Monitor for the Invention for Innovation (i4i) programme from the National Institute for Health Research Central Commissioning Facility made a presentation about the i4i funding stream. He focused on the opportunities for funding research projects, in order to gain the evidence base needed before adoption can take place.

Calderstones R&D Manager attends CHI 2013 Conference in Paris

Calderstones R & D Manager, Paula Johnson, was very pleased to be able to join Anja Thieme, Researcher from Newcastle University Culture Lab, for the CHI 2013 conference in Paris from 27 April to 2 May. CHI 2013 focused on changing perspectives using human computer interactive and technology. The conference attracted a wide range of professionals and academics in 15 different venues from over 60 countries representing different cultures, perspectives and application areas.

Anja’s project—The Spheres of Wellbeing—for which Paula is the PI, uses technology to engage women with a dual diagnosis of learning disability and personality disorder in mindfulness practice and to promote their sense of self.

The project works with women to create for each of them 3 artefacts:

- The Mindfulness Sphere
- The Calming Sphere
- The Identity Sphere

Anja and Paula each attended a workshop in relation to their submitted papers for the conference, and Anja’s presentation on the project paper was well received in the CHI community. The project is ongoing.
NCUH is currently in discussion with the core Hub staff and other Hub partner organisations to submit a grant bid for a clinical trial in the field of urology cancer diagnostics. The project is still at an early stage but expertise available within the Hub (statistics, PROMs methodology) and clinical and academic know-how at neighbouring NHS Trust partner organisations will make a good platform to turn this idea into a solid grant application.

Discussions between the core Hub staff and NCUH about how organisations can assist each other have led to some positive outcomes. For example, Lancaster University’s Prof Roger Pickup is looking to expand his project – concerning the role of mycobacteria in the pathogenesis of Inflammatory Bowel Disease—to cover North Cumbria in addition to the already established link with Morecambe Bay via Dr Andrew Higham. The gastroenterologists involved locally at NCUH will be Dr Babur Javaid and Dr Chris Macdonald.
News from the Trusts

Blackpool Teaching Hospitals was presented with the Bronze Award for the PharmaTimes NHS Clinical Research Site of the Year at an award ceremony at the Grange at St Pauls, London, in January 2013. 10 NHS research sites were finalists for the NHS Clinical Research Site category, which was jointly sponsored by the National Institute for Health Research and the Association of the British Pharmaceutical Industry.

The competition highlights the important relationship between the NHS and pharma in the delivery of clinical trials. The NHS Research Site of the Year category provides a platform for the NHS to profile their talents and skills in delivering clinical trials.

Key themes explored in the 2013 competition include ICH/GCP, delivering improved operational efficiency while not compromising quality or patient safety, and competency-based case studies designed to test specific job roles.

This award recognised the talents and skills of the Blackpool research team in delivering clinical trials as well as allowing us to demonstrate our enthusiasm to engage in research for the benefit of the local population of Blackpool and Fylde Coast.

“This is a huge achievement for a clinical research site like ours. We were competing against some of the biggest hospital research sites in the country, many of which had university status. There were several rigorous tests to go through to get to the short listing stage and the staff here showed their level of skill and knowledge to get through to the final stages. The award really does put the centre on the clinical map and will undoubtedly see more companies ask us to consider taking part in clinical research in the future.” The Trust’s Head of Research and Development, Michelle Stephens

“The team from Blackpool Teaching Hospitals NHS Foundation Trust demonstrated their excellent ability to work as a team across the entire Trust and NIHR Clinical Research Networks to secure the Bronze award. For all NHS clinical research sites this would be a significant achievement, however, for a trust building its profile in successfully delivering commercial clinical research, such as Blackpool, this award is true recognition of the progress made in embedding a research culture throughout the Trust.

This award signals to commercial and non-commercial sponsors that Blackpool takes its responsibilities and reputation for delivering research and opportunities for patients very seriously and that they are a Trust open for business.” Dr Clare Morgan, Performance and Industry Director for the National Institute for Health Research.
Many NHS patients are hitting an information “brick wall” when it comes to finding out about clinical research, according to the results of a mystery shopper investigation published recently.

The mystery shopper investigation was commissioned by the NIHR CRN, and involved visits to 82 hospital sites across 40 NHS Trusts in England. Blackpool Teaching Hospitals’ three sites were mystery shopped in December 2012. For each of these, mystery shoppers examined the basic points of contact for patients (reception desks, patient advice services, patient information centres, noticeboards and hospital websites), to assess whether patients have easy access to information about local clinical research opportunities, and how to get involved.

Out of 82 NHS sites surveyed:

- **Blackpool Victoria Hospital** scored 11 out of 16.
- **Blackpool Victoria Hospital** was 1 of only 7 sites which had information on clinical research opportunities in the obvious places where patients would expect to look (information boards/centres, in reception areas or waiting rooms).
- **Blackpool Victoria Hospital**, **Fleetwood Hospital** and **Clifton Hospital** were 3 of 28 sites which had information about clinical research on their websites that was useful to patients.
- **Blackpool Victoria Hospital** was 1 of 44 sites whose reception desks told the mystery shopper that they did do research, and/or offered suggestions about what to do next. Fleetwood Hospital and Clifton Hospital reception desks directed the mystery shopper to Blackpool Victoria Hospital.
- **Blackpool Victoria Hospital** was 1 of 37 sites who provided useful information about clinical research through their Patient Advice and Liaison Service.

Blackpool Teaching Hospitals has a well-developed marketing campaign to promote research to patients and members of the public. We are part of the NIHR Patient Screens Campaign and have research slides on screens in our patient waiting areas.

The report for our sites has highlighted the further work we need to do, especially with our peripheral sites.

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Would you like to keep up to date with all of our research news and events? Please follow us on Twitter!

Blackpool Clinical Research Centre is using social media.
Health Economics at Lancaster (HEAL)

Health Economics at Lancaster (HEAL) is a new research group based at Lancaster University. HEAL is based within the Division of Health Research in the Faculty of Health and Medicine and has strong collaborative links with the Department of Economics (Lancaster University Management School).

The primary objectives of HEAL are the development and application of quantitative research methods capable of informing health policy-making through empirical evidence and contributing to the academic and policy debate. The work undertaken by HEAL aims at having an impact on people’s wellbeing and society as a whole.

Current areas of research include:

- efficiency and productivity measurement
- economic determinants of health
- quality of life
- health econometrics
- economic evaluation of interventions
- the economics of prevention
- primary and public health

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Affiliated PhD students: - Ayeshi Ali, Shane Murphy, Robert Pryce, Miaoqing Yang

Bruce Hollingsworth
Professor of Health Economics

Bruce Hollingsworth is Professor of Health Economics in the Division of Health Research, and leads the Health Economics at Lancaster group. His previous appointment was as Director of the Centre for Health Economics, Monash University, Melbourne, Australia, where he remains Adjunct Professor.

Research and international collaborative publications are principally in the area of efficiency measurement with respect to the production of health and health care, social determinants of health, and the translation of research into practice.

Among current grants, he is Co-Applicant on the £3.65 million NIHR RDS NW RDS Grant, and Co-Applicant on two NIHR RfPB Grants, both for £240,000.

Bruce also runs the official International Health Economics Association (iHEA) e-mail discussion list, is on the iHEA Board of Directors and International Scientific Committee, is an active member of health economics organisations worldwide, an invited speaker at many international conferences and to many Government bodies, is a referee for 40 international journals, has over 150 publications, and is Editor of Health Economics Letters and Associate Editor of The DEA Journal, as well as being on the Editorial Board of The Handbook of Global Health Economics.
Chemistry was re-launched at Lancaster with the arrival of the new Head of Department, Professor Peter Fielden, in October last year. Over the intervening period, the department has grown rapidly, and now has an academic staff complement of 11 (by September) research academics and 2 teaching academics. Growth will continue during the next three years until we reach 26 research academics and 2 teaching academics, with additional support staff. The profile of the department will cover the core disciplines of chemical synthesis and physical characterisation and measurement, with clusters in computational chemistry, analytical chemistry and spectroscopy, and functional materials chemistry. Chemistry wishes to build strong links with FHM, and will seek to build a further cluster in biological chemistry. Our very recent appointment of Professor David Middleton from Liverpool, alongside Professor Anwar and the HoD will facilitate the early growth of joint projects and programmes.

The Chemistry Department has begun its building programme with the refurbishment of the former UPP building into an instrument suite to support NMR and Mass Spectrometry: Colleagues will have notices the raising of the roof! Further major refurbishment is planned in the near future to develop the specialist infrastructure essential for chemistry teaching and research, within the Faraday Building.

As part of the establishment of Chemistry at Lancaster, a substantial budget will enable the purchase of major items of equipment. We will have both liquid and solid state NMR as major research facilities. We also anticipate a high-end MALDI mass spectrometer, with the capability to perform tissue imaging, and a research-grade support mass spectrometer for liquid samples. We will also have a variety of research-level optical and infrared spectrometers, and an X-ray diffraction spectrometer. It is hoped that these new facilities on the Lancaster campus will encourage new opportunities for cross discipline and cross Faculty research.

Please contact Chemistry HoD (p.fielden@lancaster.ac.uk) for further information, and be encouraged to explore possible new research and teaching links.
Focus on Lancaster University

Professor Peter Fielden
Head of Chemistry

Peter Fielden (Chemistry HoD) is an analytical chemist with a particular interest in the development of novel measurement instrumentation, including lab-on-a-chip devices. He has particular expertise in electroanalysis techniques, micro separations and sample preparation techniques. Before moving to Lancaster, he was based in the Manchester Interdisciplinary Biocentre (MIB), where he worked with several biological colleagues to develop bespoke measurement platforms for investigating single cells and cell populations. He was also the Science Director of the Manchester Integrating Medicine and Innovative technology (MIMIT) team who work with local hospital consultants to identify potential solutions for unmet needs within healthcare. Peter would relish the pursuit of similar future research in collaboration with colleagues from FHM. He is delighted to already be part of a joint project with Rachel Rigby and Jim Morris.

Professor Jamshed Anwar
Computation Chemistry

Jamshed Anwar’s expertise is in computer modelling and simulation with a focus on molecular simulations. His research aims to develop a fundamental understanding of organic molecular assemblies. Primarily the interest is in self-assembly, interactions between assembled structures, and how assembled structures can be perturbed. Of a particular interest is crystal nucleation, which is the earliest stages of molecular assembly, when the molecules come together and cluster to form a condensed phase. Nucleation is important in biology being a primary issue in cryoprotection, formation of fibrils and fibres in amyloid diseases, and formation of cataracts, and gall and kidney stones. Other interests include molecular transport across biological membranes. Jamshed is keen to develop collaborations with clinical and biomedical colleagues in any of these areas.

Professor David Middleton

David Middleton is joining the University as Professor in the Chemistry Department from the 1st September. After obtaining his DPhil from the University of Oxford, David spent five years as a research scientist at SmithKline Beecham Pharmaceuticals in Hertfordshire. He returned to academia as a lecturer in Biochemistry at the University of Oxford and subsequently has held posts at UMIST and the University of Liverpool, where he is currently a Professor in the Department of Structural and Chemical Biology. In his research, David uses the technique of solid-state nuclear magnetic resonance spectroscopy to examine the structures and interactions of biological molecules associated with human pathologies, including neurodegenerative and cardiovascular diseases.
Dr Simon Crowther,
Clinical Psychologist

I gained my doctoral qualification in 2010 and have worked at Calderstones since this time. My doctoral thesis explored issues related to identity for violent adolescents and I have recently had this published in the International Journal of Interpersonal Violence.

Clinically, I have an interest in working with people with a diagnosis of Personality Disorder. I have undertaken further training in Cognitive Analytic Therapy (CAT) and I am part of the Dialectical Behaviour Therapy (DBT) team. Phil Clayton and I have recently published a book chapter on using CAT for people with learning disabilities. I am also interested in systemic working, in particular the principles of Therapeutic Communities applied to forensic settings. Some colleagues and I have recently had a paper accepted for presentation at the 8th European Congress on Violence in Clinical Psychiatry; discussing the impact of community meetings on violent behaviour.

My research interests include issues related to identity and client empowerment. I am currently involved in a project looking at sexual identity and relationships for adults with Learning Disabilities who live in forensic settings. This project is being led by Chris Walton from Lancaster University and is supported through the Clinical Research Hub. It aims to examine, through the qualitative analysis of semi-structured interviews with clients and staff at all levels in the Trust, the issues and factors affecting the relationships that clients have, the support they receive and the restrictions that they may experience.

Shondipon Laha BM Bch MA FRCA FFIM
Consultant in Critical Care Medicine and Anaesthesia

I am part of the Critical Care and Trauma Team with four research nurses for national trials and developing local trials. I’m not a researcher by background although my MA was in Cell Biology. When I first started as a consultant about five years ago I was tasked with setting up a research facility for Critical Care and given the support to recruit a research facilitator (Jackie Baldwin). We started with contributing to trials looking at reducing acute lung injuries following trauma and infection. We realised that our nurses (and more surprisingly our consultants!) were very enthusiastic about recruiting and so we moved on to trials looking at the frequency of fungal infections, the genetic make up of sepsis, and lots more lung injury research. This has resulted in several more nurses joining us (Angie, Gaynor, Alex and Sean) and with this we’ve been able to contribute to research that includes other departments including upper gastrointestinal surgery, neurosurgery and more recently the Emergency Department. With the advent of the Trust being named a Major Trauma Centre we’ll also be able to recruit to trials that improve outcome after major trauma.

Alongside this we’ve been doing local research often with fourth year Manchester Medical school students. These projects have all been small but highly interesting, for example, we’ve looked at handheld lactate monitors (normally used by athletes) we’ve used in critical care. Recently we’ve attempted to address sleep deprivation and delirium—a common issue in Critical Care, where the flashing lights, alarms and other problems often mean patients don’t rest when they need it most. We found that simple protocols for keeping noise and light down to a minimum makes a massive difference and we’re hoping that we can turn this into a much larger national trial. We have also started working with the Department of Engineering at Lancaster University (the labs are better than the inside of the TARDIS!) making novel pieces of equipment we’re hoping will make patients safer.
Lynne Bax  
Associate Clinical Director and Community Matron Lead Clinician

My area of specialism has been with the respiratory field and in particular why some people actively engage in self-management whilst others don’t, irrespective of whether they receive an intervention or form part of the control. Following completion of an MSc in Respiratory Care in 2011, I developed a range of chronic obstructive pulmonary disease (COPD) self-management tools with my colleague, Will Sullivan, Team Leader from Pulmonary Rehabilitation. The tools are based on a literacy sensitive approach to the NICE guidelines in relation to self-management and called “How are you today?” Following the development of the tools, Will and I presented at the North West Respiratory Pathways Conference which was attended by the Respiratory Leads from the Department of Health. We received very positive feedback about our “How are you today?” tools from the Respiratory Leads and it was following this feedback and support from LCFT’s Chief Executive, Heather Tierney-Moore, that I decided to evidence the use of “How are you today?” by undertaking a Professional Doctorate.

I am now at the end of my first year and my Professional Doctoral thesis will be a mixed methods approach exploring individuals experience and motivation to use the “How are you today?” tools for COPD. Further discussions have already taken place to work collaboratively with Lancaster University, with plans to apply for Research for Patient Benefit funding, to validate the “How are you today?” tools, and then to develop the tools for other long term conditions.

The vision is that “How are you today?” will support patients in managing their long term condition and reduce inappropriate hospital admissions.

- “How are you today?” for patients as early as diagnosis
- “How are you today?” for patients being discharged from hospital
- “How are you today?” for patients being supported with enhanced care in the community.

The intellectual property rights (IP) for the tools will support the development of the concept for other long term conditions, in languages other than English, in braille and as web and smart applications.

Focus on Trust Partners

Research in the area of vascular disease and vascular surgery at North Cumbria University Hospitals NHS Trust (NCUH) has increased considerably over the last few years. In line with other disease specialties, the vascular surgery team – mainly based at the Cumberland Infirmary in Carlisle now that this is a specialist regional centre – now contributes to a host of National Portfolio research studies. Mr Thomas Joseph is Principal Investigator for all of the following studies: ECST2 & ACST2 which focus on carotid artery surgery, and UK LEAP which looks at safety aspects of vascular surgery in a select number of hospitals. Furthermore, NCUH is the only Trust outside London to contribute to a study that uses discarded atherosclerotic plaque material to investigate the pathogenesis of the build up of plaques in arteries.

Mr Joseph (pictured left), the wider vascular team and the R&D Department are also celebrating a second publication in the European Journal of Vascular and Endovascular Surgery (EJVES). After a publication on the use of low molecular weight heparin in aortic aneurysm surgery in 2011, a paper on the use of a patient fitness scoring tool – called POSSUM - for prediction of long-term survival in vascular patients has been accepted by EJVES in May 2013. There are now plans afoot to rigorously assess the implementation of the POSSUM tool in daily clinical practice. Finally, Mr Joseph is also leading on the introduction and appraisal of a new commercially available rigid dressing for patients who have undergone below-the-knee amputations. This project concerns a collaborative effort with the physiotherapy department through Nici Tebbutt, with whom the vascular team has published a paper before in Physiotherapy.
Focus on Trust Partners

Dr D H Roberts, Consultant Cardiologist,
Lancashire Cardiac Centre, Blackpool

I have worked as a consultant cardiologist in Blackpool for 20 years. Prior to this I have held academic as well as NHS training positions. I have remained active in research throughout my consultant career. Prior to the inception of research networks I had strong links to Liverpool University and this resulted in MDs produced by research registrars working in Blackpool. I have been a member of the Executive Team for Lancashire/Cumbria Research Network since its commencement while also working closely with our own R & D Department. My main present area of research now relates to elderly patients with structural heart disease who are being evaluated for Transcutaneous Aortic Valve Replacement (TAVI). The importance of improvement in quality of life (QOL) with this procedure through careful case selection and assessment of risk/benefit ratio is crucial. I have proposed a prospective study to evaluate this in UK TAVI centres. The protocol has peer review approval and we will shortly submit for consideration of adoption on to the national research portfolio. My future aims and objectives are to pursue this further by facilitating strong collaboration with the research hub and specifically with the academic ageing programme at the University of Lancaster.

Dr Mark Wilkinson
BSc (Hons) MB ChB FFICM FRCP (Ed)

Dr Mark Wilkinson works as a Consultant in Respiratory and Critical Care Medicine at University Hospitals of Morecambe Bay NHS Trust. In addition to clinical responsibilities he is Clinical Lead for organ donation and lectures in Physiology at the University of Lancaster Medical School.

Previous research interests have been in the management of Respiratory failure in Chronic Obstructive Pulmonary Disease (COPD); control of ventilation, particularly in chronic hyperventilation syndrome and cardiorespiratory exercise physiology related to this. Currently he is local PI for national and international pharmaceutical trials, mainly in COPD management, including the use of anticholinergic inhalers and in investigating drug treatments in exacerbations of COPD. He is also collaborating with the university in a study of Proteomic analysis of urine as a marker of bacteraemia during intensive care and a further collaborative project examining aspects of the ethics of Organ Donation.

Other current work includes co-authoring several systematic reviews in asthma and bronchiectasis as part of the Cochrane Airways Group.

As a relatively new consultant he is keen to build the research base within the Trust, aiming to make research an integral part of respiratory and critical care clinical practice. He also wishes to continue to develop links, working with other researchers and clinicians in the region and with the university.
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