



MATCH NEWSLETTER

Multidisciplinary Assessment of Technology Centre for Healthcare

IN THIS ISSUE

Page

2 Open Innovation Workshop in Ulster

3 Interview with Jill Dhell
4 Next Generation Researchers

5 MATCH Tools on Tour
6 MATCH Guides

About MATCH

MATCH is a collaboration between five leading UK universities in the field of healthcare technology assessment and a cohort of industrial partners from the sector. It provides a critical research mass stretching across the UK healthcare technology sector. It supports companies and user communities by creating methods to assess value, from concept through to mature product, and by engaging with regulatory bodies at home and abroad.

UNIVERSITY OF BIRMINGHAM

Brunel UNIVERSITY WEST LONDON

The University of Nottingham

University of ULSTER

Issue 5 Autumn 2009

Welcome to Newsletter 5

Professor Terry Young



Five: a propitious number for MATCH, as we move confidently through the opening stages of our second five-year phase of

activity, safeguarded by secured funding until 2013 from the EPSRC, the NHS, the Department of Health and the Programme's cohort of Industry partners.

The contents of this fifth newsletter reflect MATCH's growing maturity as a reputable and productive innovative research centre; as an effective and respected policy collaborator; as a generator of highly relevant tools and methods; and – not least importantly – as

a stimulating, nurturing environment for cultivating and honing individuals' talent.

With this track record we combine some challenging ambitions, such as extending the reach of our international reputation and entrepreneurial capabilities, in order to make substantial progress towards becoming a fully sustainable and globally relevant Research Foundation.

We're justifiably proud of the achievements reflected in this bulletin, but we're far from complacent, as we pledge to continuously and critically assess, measure and challenge our direction and progress in the context of unusually tough economic and political landscapes. Our confidence for the future, as well as our past success, reflects the durability of MATCH's original vision, the dedication of the Programme's people and the interest of its supporters. Thank you all and enjoy the fifth Newsletter.

Welcome to the new MATCH website!

Elizabeth Deadman



MATCH has a new website! It's been many months in the making and has taken a

great deal of time from many people. We wanted a light and welcoming theme to the website that would provide our users with intuitive site navigation. To make this happen, we hired web site designer Liz Edwards to design mockups and create a prototype for us. She created the overall look of the site around the MATCH logo.

Our goal was to launch the new site at the same time as MATCH2, so that we kick off the new phase with a whole new brand. Unfortunately the deadline overran but we are delighted that the new website was live in early spring. There are still some outstanding issues we need to resolve, but we are pleased with the general feel of the website and the accessible format.

Now that we've got a shiny new website we're going to take good care of it so that it will last us for many years to come! We hope that you're as happy with it as we are!

www.match.ac.uk

Open Innovation Workshop in Ulster

Dr. Shirley Davey

MATCH News



Dr. Shirley Davey: a Researcher on MATCH Project in the University of Ulster. She has over 8 years' experience working in the Medical Device sector with both clinicians and industrialists. Her previous positions have involved carrying out research projects with global companies, government agencies and local hospitals in the fields of biomaterials and medical devices.

Dr. Davey is the Chair of the Institute of Materials National Younger Members Committee, Vice-Chair of the Irish North Materials Group, Representative on the Engineering Council and Council Member of the Northern Ireland Bioengineering Society (NIBES). She has over 14 publications, is a co-investigator on grants totalling £1.7 million and is referee for a number of International Biomedical Journals.

The workshop held at the University of Ulster was organised in collaboration with the Ulster Business School to launch the new Business Innovation and Healthcare Technologies Research project at the University of Ulster that is funded as part of MATCH2. The event was also supported by Invest Northern Ireland, the HSC (Health & Social Care) R&D Office and the Clinical Research Support Centre.

The main purpose of the workshop was to inform organisations of this new MATCH project and research tools. Also to provide an update on other aspects of MATCH and to engage with leading companies that are involved in developing innovative medical technologies. The event also provided SMEs and individuals with an opportunity to learn how innovation is managed by two successful and expanding healthcare companies: GE Healthcare and Almac Sciences.

The workshop began with formal presentations by Prof. Brian Meenan & Dr. Michael Brennan from the University of Ulster, Dr. Claire Wilson from Almac Diagnostics and Ian McLellan from GE Healthcare. The presentations were followed by a discussion session chaired by Pat Doyle, Business Improvement Services, Invest Northern Ireland and Dr. Shirley Davey. This enabled companies and health service organisations to discuss common issues and challenges to innovation in the medical device sector in N. Ireland and globally.

Discussion Topics

1. What does innovation mean to your organisation?
2. What are the main challenges or barriers to innovation in the current climate?
3. Do you feel there are merits in looking outside your business for new ideas and technologies?
4. Would your company be prepared to collaborate either with other companies or academia to improve your competitive position?



From left, Prof. Terry Young, Dr. Michael Brennan, Dr. Clare Wilson, Prof. Brian Meenan and Mr Ian McLellan

5. Is there an effective Northern Ireland healthcare technology cluster?
6. What are the main drivers in Northern Ireland to take forward for increased growth and awareness in this area?

Key Points Raised by the Discussion

- It was found that often innovation is happening within organisations but there is not sufficient staff resource or time to develop ideas. One company stated that 'There is just too much work to develop creative solutions.' For companies to succeed in innovation it can't be divorced from the actual job of the individual, it needs to be a managed integrated process where individuals and departments are encouraged and empowered to collaborate.
- Some companies stated that customers are now involved in innovation of products which means a new approach to innovation is needed in order to secure new clients. There is now a realisation by companies of the increased need to engage with the users of the technology.
- A lack of finance and public healthcare money available to companies as opposed to the health service was stated as a barrier to innovation in the current climate.

The workshop was well attended with a combination of people from local companies, academia, Government and health service organisations. Future meetings are being planned which will involve MATCH contributing to a more focused innovation event in collaboration with healthcare companies.

Interview with Jill Dhell

Elizabeth Deadman

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News

NHS
National Institute for
Health Research



Jill Dhell: Innovation and Industry R&D Relations Manager, Research and Development Directorate, Department of Health

ED: What exactly is your role within the Research and Development Directorate, Department of Health?

JD: I work in the Innovation and Industry R&D Relations Branch of the Research and Development Directorate at the Department of Health. We interface between the medical technology, pharma and biotech industries and the NIHR infrastructures and activities that have a role in delivering improvements to the NHS health research environment that can also benefit the life science industry. This aspect of improving both the health and wealth of the nation is a key part of the vision within the government's health research strategy "Best Research for Best Health", the Cooksey Review and the Darzi Next Steps Review. It was also identified back in the Healthcare industries Task Force recommendations.

In relation to the med tech sector, I have a number of roles such as leading on the National Institute for Health Research Medical Devices Clinical Research Working Group, which we set up in July 2007 to improve working relations between industry and the NHS in the context of R&D. I also work closely with the NIHR Clinical Research Network to clarify and develop their service offering to the med tech industry. A practical outcome has been the development of the model Clinical Investigation Agreement for med tech industry sponsored clinical research carried out in NHS hospitals. I also lead for DH on the initiative to pilot Healthcare Technology Co-operatives.

In addition, MATCH is currently working closely with us to produce user guides which describe methodologies appropriate to the various stages of product development for evaluating medical technology products

ED: What drives you personally in this role? What do you like about the job?

JD: The scope of this work is enormous and there are huge challenges in bringing together the different cultures of the NHS and the industry yet there is a shared agenda here. Who doesn't want NHS patients to have early access to cost-effective beneficial new and innovative healthcare products? I enjoy the challenge of working in uncharted waters, finding common ground between groups and individuals working in a wide range of different organisations and roles, and attempting to find solutions to complex problems.

ED: Can you see specific benefits arising from the collaboration between the Department of Health and MATCH?

JD: Early on in the discussions within the NIHR Medical Devices Clinical Research Working Group, it became apparent that there was quite a widespread lack of understanding of appropriate trial design for medical technology products – both within the NHS, where the pharmaceutical model is widely understood but the product development pathway for devices is less understood, and within the industry, where there is a high proportion of small businesses with a small range of products. I am very pleased that MATCH has agreed to produce a user guide that will signpost, for both industry and the NHS, appropriate methodologies to use in trials of different types of devices at different stages of the product development pathway. This is particularly important given the rising importance of demonstrating clinical utility and cost effectiveness.

ED: **How do you think MATCH differs from other DOH/academic collaborations that you've been involved with in the past?**

JD: The themes identified in MATCH's second phase focus on areas that are essential and complementary for a thriving medical technology community, which spans patients and healthcare providers, academics, and manufacturers. The MATCH programme articulates the interdependence of these communities and provides a platform for bringing shared learning into each theme, catalysed by leading edge academic thinking.

MATCH also reaches out into the different communities to provide expert input. We are very pleased that MATCH will be providing support for applicants to the new

NIHR Invention for Innovation funding programme, which encourages the development of new healthcare technology products from early to near-to-market prototypes.

ED: **In your understanding, what do you believe MATCH will contribute to the UK and indeed the global medical device industry?**

JD: With the increasing emphasis on demonstrating clinical utility and cost effectiveness data for the UK and wider global markets, MATCH has the opportunity to provide a unique and hugely valuable cutting-edge resource to benefit the breadth of the medical technology community not only in the UK but also abroad.

ED: **Thank you very much Jill, I really do appreciate your time.**

Next Generation Researchers

Urvashi Sharma

As a MATCH funded PhD student based at Brunel University, I have received a high level of support and guidance from the MATCH team. From the very beginning of my research studies, I have been included in project meetings and conferences. My first MATCH conference was at the Culloden Hotel, Belfast. At the time, I was not sure as to what to expect, however, I soon realised the depth of MATCH as a programme. To me personally, MATCH did not seem like a collaborative network but more like a closely knit family, where its members worked dexterously together to achieve its goals. It provides a unique environment where academic and industrial views are exchanged, critiqued and utilised to decipher problems concerning technology assessment, evaluation, implementation and user perspectives.

The research method course provided by the School of Information Systems, Computing and Mathematics, Brunel University, where

I am based, provided an opportunity to familiarise myself with staff members and fellow students. Apart from facilitating the understanding of research methodologies and developing skills such as reviewing the literature and writing papers, the course introduced me to the concept of research as a career. As a voluntary Graduate Teaching Assistant within the department, this allowed me to explore the role of workshop facilitator. Outside the department, the Graduate School organises various seminars and courses aimed at postgraduate students such as annual poster conference, entrepreneur master classes and specialised course in SPSS and Nvivo. Here, while I gained knowledge mixed with fun activities, I also met other students from different schools/departments which enhanced my socialising and networking skills!

For my PhD in telemedicine, the combination of a MATCH sponsorship and an office located at Brunel University is ideal.



Urvashi Sharma: a PhD student in the School of Information Systems, Computing and Mathematics at Brunel University. The working title of her thesis is: Role of Telemangement and Community Matrons in management of patients with Congestive Heart Failure.

MATCH Tools on Tour

Dr. Michael Craven

MATCH News



Dr. Michael Craven: a Senior Research Fellow at the University of Nottingham, is engaged with applied projects in collaboration with MATCH's industry and health service partners, primarily in the area of medical device evaluation. He is currently working closely with the NHS National Innovation Centre and Centre for Evidence-based Purchasing. Dr. Craven has additional experience in electronic engineering and computer science teaching and research, including design of communication aids, surgical simulation devices & software, and collaborative virtual environments.

The MATCH 'Tools and Training' workshops supported by regional Medilinks, kicked off last Autumn. The half day event took place in South Yorkshire at the Brooklands Hotel in Barnsley, hosted by Medilink Yorkshire & Humber through the efforts of Giles Proffitt, Tom Pinto and others. Participants came from the NHS, the medical device industry and innovation service providers.



Dr Michael Craven presenting at the MATCH ABHI Workshop

The afternoon consisted of two sessions. The first of these 'How to demonstrate the full value of your healthcare innovation to the NHS' comprised an introduction to the MATCH Health Economic (HE) Evaluator tool, followed by a demonstration of its use with two medical device modelling exercises. The HE Evaluator has been designed to be accessible to those with limited experience of health economics and runs in the familiar Microsoft Excel spreadsheet environment. The aim of the tool is to help developers and purchasers form a reliable early view of cost effectiveness using limited data such as that typically available at the early stages of product development. It employs a simplified decision tree model with clear graphical presentation of results and includes a capability for examination of sensitivity to input data. The session was presented by MATCH researchers Dr. Michael Craven and Dr. Bo Lu from the University of Nottingham. A questionnaire was presented to workshop participants as part of ongoing evaluation and to inform future dissemination strategy for MATCH tools.

The second session 'The benefits of involving users and professionals in medical device development' was presented by Dr. Jennifer Martin, who is also a MATCH researcher at Nottingham and a specialist in ergonomics.

The session outlined the research MATCH has been conducting since its inception into methods for engaging patients, carers and healthcare professionals with the design process for medical devices at all stages. This work has already translated into applied research projects with industrial partners. Furthermore a forthcoming guide to user involvement is being published with the National Patient Safety Agency and an advance copy was given to all workshop participants.

Questions were encouraged throughout the sessions and time was made available afterwards for a fruitful group discussion. Overall feedback from the day was very positive. In addition to its use by device developers and the NHS, also highlighted by participants was the potential for the HE Evaluator to support procurement agencies or to assess the value of possible solutions to unmet clinical need.

As the tour progresses and MATCH proceeds into its second five year phase we aim to work with our partners and the wider base of stakeholders to ensure that delivery of methods and tools are suited to their needs. For information on future events, do check the events page on the MATCH website: www.match.ac.uk.

"HTA is not always considered to be particularly accessible for Med Tech SMEs and is often applied retrospectively to support sales. However, the workshop and tools provided a very useful insight as how HTA could be rapidly and practically applied at a stage early enough to help influence the development of a new product. Functions such headroom analysis stimulate debate and aid communication that ensures products can focus on the right attributes that potential users and purchasers are seeking."

Giles Proffitt

Product Innovation & Operations Manager, Medilink

MATCH Guides – Evaluating Health Devices

Prof. Richard Lilford

MATCH News



Professor Lilford has over ten years experience as Professor of Obstetrics and Gynaecology and over five years as Regional Director of R&D (RDRD) in the UK. Currently he is Head of School of Health & Population Sciences, Professor of Clinical Epidemiology in the University of Birmingham and Director of the Birmingham Clinical Research Academy.

Bringing a medical device to market is no longer a case of working with a keen clinician to develop a prototype, getting it CE marked and then building up the market from the hospital or clinic where it all began. In some ways, it is becoming easier with the advent of national structures for evaluation and the drive for innovation following the Darzi Review. On the other hand there is a greater need to build the evidence base and then articulate the value accordingly.

This guide is for anyone who is involved in evaluating medical devices, and particularly those in the industry who must decide how best to furnish the evidence. Integrating the processes of building a base of evidence with business decision-making is not easy, and so this guide has been written to set out both the broad context of invention and development and the more specific elements around strategies for trials. It covers well-worn pathways that have been proven with time, and some of the latest thinking around Tracker Trials.

In trying to lay the accent on an accessible style with an uncluttered approach, we have included 'Find out more' sections throughout the guide, pointing the reader to treatments of greater depth or of broader interest.



The MATCH Evaluating Health Devices is available to purchase on-line through the MATCH website for £25.00 including postage and packaging: <http://www.match.ac.uk/themes/project1/match-guide2.aspx>

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