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Message from the Centre Director
Dr Stephen Preece

This is my first newsletter as Research Centre Director as I will formally take over from Peter Hogg at the end of October. Before I talk about the new and exciting developments happening across our centre, I want to acknowledge the enormous amount that Peter has done as Centre Director over recent years. Under his guidance, we have seen continued growth in KPIs around bidding, PGR numbers and research outputs. In addition, I also feel that Peter has fostered an increased sense community across the centre. As you can see from the picture opposite, Peter is still able to find time to help out with PGR experiments even it if involves him wearing the Darth Vader mask! As many of us are aware, PGR students often need volunteers for lab work, so please help them out as much as you can. Peter will stay on as Associate Dean for Research and will be supported by myself as Research Centre Director. Following on from Peter, I have a lot to live up to so hopefully I won’t disappoint you!

Next, I want to congratulate Kris Hollands, who was recently appointed as REF lead. Kris has worked as Deputy REF lead for the last year and so is ideally placed to take on this role. Kris will lead the ROME panel and will be developing and monitor our strategy, both for the forthcoming REF and moving forward to the next REF. Kris will be assisted by Rob Higgins, our impact coordinator, who is doing a great job mapping out impact case studies for the forthcoming REF. Kris has some really great ideas for supporting research active staff both with strategic planning for research and also for writing journal papers. In fact she has already set up regular writing workshops and has plans to run more focused sessions to help researchers develop abstract writing skills. Whilst we are on the topic of REF, can I just remind everyone to make sure that all research papers are submitted to USIR with three months of acceptance?

As I sure many of you are aware, we are currently undertaking a review of our research centre. This review is being carried out by Samantha Bird (a recent PhD graduate from radiography) who is collating quantitative data on research performance (citations, bids, PGR students etc) and also carrying extensive interviews with many research staff across the centre. The results of this centre wide review will inform our new research centre strategy which should be ready end of December. We intend to talk about the evaluation and new strategy at the research centre open meeting on the 6th December so make sure you come along! Interestingly, the university are also developing a new research strategy and, as far as possible, we will aim to align our centre strategy with the university plans.

At the end of this year, Leslie Robinson will be stepping down as PGR director as she is retiring. I want to take this opportunity to thank Leslie for all the hard work that she has done in this role. Even in her final two months Leslie is determined to do all she can to enhance the PGR student experience.

Continues below
In fact, she is currently developing a number of initiatives, including a set of workshops to help PGR students improve their academic writing skills for IA and IE – watch this space! An advert for a replacement PGR director (and new deputy research centre director) will be circulated shortly and we hope to have a replacement for Leslie in place by early December.

In June this year, our research centre put on a fantastic event which showcased the breadth of our research. Many of you will have attended this event and I am sure you will agree that this went really well and succeeded, both in presenting the research we do to outside world but also in allowing us to get a better idea of the type of research that goes on outside our own research theme. This event was organised by Sam Bird and I want to extend my sincere thanks to her for all her hard work. In addition, the ECR group put on their own event the following day to promote the research being done by ECRS across the centre. Again, this was a great success and the ECR group and looking to run something similar to this on a more regular basis.

Finally, I want to leave you with a few words about ICZs. The university has recently appointed a new director for the Health, Wellbeing and Society ICZ (Andrew Spencer), who will start in a months’ time. I think this could present us with a great opportunity to enhance our engagement with the ICZ strategy and.

I intend to meet with Andrew as soon as he starts so that I can understand how our research centre could play a key role in the health ICZ. This will certainly involve some strategic planning around how we grow and develop exceptional partnerships with industry (including health care providers and NHS trusts). I am confident that 2018 will be an exciting and productive year for our research centre and I look forwards to working with many of you more regularly as the year progresses.

Steve Preece
Equity, Health & Wellbeing
Theme Lead- Prof Penny Cook

This research area covers important contemporary aspects of health and wellbeing, with particular focus on inequalities in health and issues affecting work and the working age population. This interdisciplinary group specialises in applying and evaluating evidence-based health practice and the design, development and evaluation of contemporary health interventions.

Evaluation of the Communities In Charge of Alcohol (CICA) Programme in Greater Manchester
The Equity, Health and Wellbeing group has won a £770,000 grant to evaluate a pioneering programme aimed at combating the growing number of people who drink excessive amounts of alcohol across Greater Manchester. The Communities In Charge of Alcohol programme was launched in September 21 by the Greater Manchester Combined Authority and will be led by community volunteers called ‘Community Alcohol Health Champions’ who will be trained to help family, friends and colleagues to rethink their drinking habits. In addition, since the legal availability of alcohol is one of the main controls on levels of alcohol consumption and harm, Alcohol Health Champions will also be trained and supported to intervene in the licensing system.

The project is being run in partnership with Greater Manchester Health and Social Care Partnership, all ten Greater Manchester Local Authorities and the Royal Society for Public Health. The evaluation, led by Professor Penny Cook and funded by the National Institute of Health Research (NIHR), will assess the impact of the scheme and whether it can later go on to be introduced in other parts of the UK. The Salford team include Dr Margaret Coffey (EHW) and Liz Burns (School of Health and Society). They have been joined by new members of the project team, Suzy Hargreaves (Research Assistant) and Cathy Ure (Research Project Manager). The evaluation is being carried out in partnership with the University of Bristol, the University of York and Public Health England.

Follow the project on @CICA_NIHR

Success Stories
Clare Edge (supervised by Penny Cook and Margaret Coffey) successfully defended her thesis ‘Ageing, health and retirement choices in a diverse workforce: Case study of a large private retail sector organisation’. Clare has since secured a lectureship in Psychology at Manchester Metropolitan University.

John Hudson was awarded the ‘Lindsey Dugdill Memorial Award for Outstanding PhD’ for his thesis looking at how employers might improve work for employees by employing wellbeing interventions. Read more

New Staff
Suzy Hargreaves has joined the team as Research Assistant for the CICA project. Suzy brings with her a wealth of experience of research in public health in the areas of HIV epidemiology, sexual health, substance use. Suzy is also writing up her PhD thesis on her qualitative study exploring the mental health and substance use needs amongst Irish Traveller population.

Cathy Ure is CICA’s new Research Project Manager. Cathy’s other areas of interest include the use of digital technologies to support patient health. Her PhD explores social media use by women living with and beyond breast cancer to support psychosocial needs.
Diagnostic Imaging
Theme Lead - Prof Peter Hogg

The Diagnostic Imaging Research Programme (DIRP) was founded in April 2009 and it brought together researchers within the Radiography Directorate with a view to them focusing collectively on specific areas. Today it houses a vibrant research community encompassing academic staff, honorary staff, PhD students and clinical / industry partners and at any one time there are 20-30 active projects. Below is an example of one current project.

Blurred Mammography Images
Mammography is used to screen well women in order to identify subclinical breast cancer and within defined age categories they are invited on a regular basis for mammography imaging. Technical image quality is paramount such that accurate diagnoses can be made. However since mammography switched from film- to computer-based imaging, blurred images have started to appear; these images have reduced clinician confidence in their diagnoses. Consequently blurred images might need to be repeated, leading to increased radiation dose to women, increased costs and raised anxiety for women and their friends / families. We commenced research into mammography image blurring in 2010, with a view how blurring might occur, what its consequences might be and how it might be minimised.

The team was led by Professor Peter Hogg, Judith Kelly (Countess of Chester Hospital) and Vincent Ma (Hong Kong). The team included a multi-professional mix of academic staff - Katy Szczepura, Claire Mercer, Rob Aspin, Dave Howard, John Thompson, Mark McEntee, Carla Lanca from Salford, Sydney and Lisbon Universities; clinical staff – Rita Borgen, Bev Hilton, David Brettle and Sara Millington from Burnley, Chester and Leeds hospitals; PhD and MSc students Melanie Taylor and Ahmed Abdullah from Manchester and Iraq.

So far we have published 9 articles in medical, radiography and physics journals1-9 and we have presented over 20 conference papers. The articles explore possible causation (including breast and compression paddle movement during image formation), the consequences of image blurring (including missed cancers) and a theoretical solution. We have further articles to publish and we anticipate these will have occurred by summer 2018. Recently we have been exploring new funding opportunities to extend our research and also new avenues of research that have arising from what we have discovered so far.
Our welcoming research group is co-led by Professors David Howard (School of Computing, Science and Engineering) and Laurence Kenney (School of Health Sciences). We work on the design and development of new rehabilitation technologies aimed at assisting functional movement, together with novel methods for their evaluation. Our work is currently supported by research grants from EPSRC and a number of charitable organisations.

Over the past few months we have been working closely with Professor Malcolm Granat’s group. Each month we organise a joint seminar for members of the two groups, for which one member of the team bakes a cake. Last month’s star baker was MPhil student, Abbie Monk! Below is a brief report on our recently completed project in which we produced a new system to support the recovery of arm function following stroke.

A new system designed to support the recovery of arm function following stroke
After stroke, many people find it difficult to use their affected upper limb(s). The limited availability of therapists combined with low uptake of technology leads to very low “doses” of therapy, which in turn may contribute to rather poor clinical outcomes.

Functional Electrical muscle Stimulation (FES) is the use of electrical pulses to stimulate weak/paralysed muscles in such a way as to support performance of a functional task. FES offers the potential to improve the ratio of therapists to patients and hence deliver more therapy for the same staffing level. Furthermore, it may offer advantage over traditional therapy approaches.

In a recently completed NIHR-funded project, we have been working with Odstock Medical to design and test a new FES system which supports the user to perform challenging, engaging and task-focused practice. The new system (shown below) comprises:
- A five channel stimulator;
- Setup and session management software running on a tablet computer and;
- Movement sensors and an instrumented object.

Towards the end of the project we tested the system in 3 clinical settings, recruiting 22 people who had arm problems resulting from a stroke and 11 therapists. We wanted to know whether the system helped people with stroke to perform functional tasks, whether any side effects were outweighed by the benefits, how the therapists used the system and what they thought about it. Although we have not yet fully analysed the results, the initial data looks promising. Odstock Medical plan to bring the system to market at the end of 2018.

Follow our updates on this and other projects on Twitter @UoSRehabTech

Continues below
Successes
Congratulations to Dr Head and Twiste for winning funding for a new research project, funded by the English Federation of Disability Sport, in collaboration with Limb Power.

Congratulations to Huthaifa Atallah, who was awarded his PhD entitled ‘The development and evaluation of a novel passive approach to maintaining residuum volume in trans-tibial amputees’.

Maulik Gandhi, who was awarded his MPhil, entitled ‘Initial validation of the Arthroscopic Skills Acquisition Tools (ASATs): A low cost, online tool to develop and evaluate core skills for shoulder arthroscopy’.

Alix Chadwell and Dr Mingxu Sun who were both selected to present at the STEM for Britain event at the House of Commons. Alix Chadwell went on to win funding from the Institute of Mechanical Engineers and Santander to support her attendance at the Myoelectric Controls Symposium in Canada, where she won the prize for best student presentation. She capped off a fantastic summer by winning the Sam Gallop prize at the UK ISPO annual meeting at Cambridge University. Abdullah Al-Ani won first prize for his presentation at the annual postgraduate showcase for the School of Computing, Science and Engineering.

Thank you to our internship students, Charlotte Robinson (University of Warwick) and Romain Voltzenlogel (University of Lorraine), who worked with us earlier this year and welcome to Muhammad Gifari who joins us in September from the University of Twente.

Staff coming and going...
Welcome to Dr Alex Bates, who has joined us following a PhD at Imperial College London, working with Dr Sibyille Thies and team on a Dunhill-funded project investigating walking aid stability. Goodbye and good luck to Dr Tsu-Jui Cheng, who recently left our group to take up a new position in Taiwan. Good luck also to Dr Jamie Gardiner who has recently taken up a post at the University of Liverpool.
Rehabilitation  Theme Lead- Prof Alison Hammond

NIHR GLOVES Multicentre Randomised Clinical Trial Complete
The NIHR Research for Patient Benefit (RfPB) funded "Testing Arthritis Gloves in RA" randomised clinical trial was successfully completed and currently data analysis is in progress, which should be completed by the end of December’17. Results of this RCT will inform the rationale behind the prescription of arthritis gloves in the NHS, as the current evidence base is lacking. The impact of this research will span wider than the NHS glove provision, as the use of compression gloves have been popular amongst people with RA around the world in recent years for treatment of hand pain and swelling. The results will demonstrate whether the commonly prescribed arthritis gloves + hand exercises + joint protection education in the NHS are effective and cost-effective compared to the placebo gloves + hand exercises + joint protection education provided in this study across 14 NHS Trust Hospitals.

Ongoing Research
Dr Yeliz Prior is in the process of starting the Council for Allied Health Professionals in Research (CAHPR) and the University of Salford Internal Research funded Fibromyalgia Self-Management Education (FAME) Programme: A Pilot interventional study in November’17. This interventional study will last 12 months and take place at the Mid Cheshire NHS Trust, where Yeliz run rheumatology OT clinics and the results will inform an NIHR RfPB grant to hold a definitive RCT.

Yeliz also has been leading the development and testing of the Logres Trust funded MSKHUB: An Online Platform for Self-Management of rheumatic and musculoskeletal conditions, which will be launched officially in November’17. This online platform and smart phone app will enable individuals with MSK conditions to login and create personal profiles, in which they will record their health status using digital patient reported outcome measures to help them involve with shared decision making with clinicians and also obtain self-management education. The mskhub.com will also include health professionals education in rheumatology. Yeliz has applied to the Salford CCG Innovation Fund to develop this online hub and iOS app further, and managed to go through to the stage 3 of the grant process, which will involve pitching the project to the NHS service providers and commissioners in a Dragon’s Den Style! Watch this space.

Successes
Prof Hammond and Dr Prior was successful in obtaining EULAR Health Professionals in Rheumatology Grant to conduct the “Cross-cultural adaptation and psychometric testing of work patient reported outcome measures in people with rheumatoid arthritis in the UK, Sweden and the Czech Republic” project. This project includes international collaborations with researchers from Sweden, Czech Republic, Canada and Switzerland and it forms a part of our larger programme of grants to develop and test patient reported outcome measures in Rheumatology rehabilitation. The project started in September. We were successful in obtaining an Arthritis Research UK Summer Research Intern this year. This is a very competitive scheme where Arthritis Research UK funds newly graduate Health Professionals to conduct a project in Rheumatology and the Institutes bids for various projects to attract applicants.

Continues below...
Newly graduated Podiatrist from Southampton University, Miss Christine Rolls, joined us for 10 weeks to conduct a systematic review into none-pharmacological management of Fibromyalgia, to support the evidence base behind the FAME Study. The results of this systematic review was submitted to British Society of Rheumatology Conference for a peer review and will be written as a peer review article.

We also have an Erasmus Intern from Sardinia, Italy who joined us in August. Mr Salvatore Secchi is a Physiotherapist and in the process of completing his Masters in Rehabilitation Sciences in Italy. He will work on a systematic review of work problems in people with osteoarthritis, which we are hoping to complete by December and submit it for a peer review to the European League Against Rheumatism (EULAR) conference, which will take place in Amsterdam in June’18.

Yeliz was invited to join two new EULAR Task Forces in September 2017. First task force is related to the development of core competencies for health professionals in Rheumatology across Europe, and the second project relates to points to consider for the development of mHealth applications for self-management in RMDs.

Yeliz was also invited to draft the World Federation of Occupational Therapists’ position statement for the role of Occupational Therapy in management of rheumatic and musculoskeletal conditions, which will be reviewed and edited by an international committee with a view to produce this document in May’18.

Lastly, Yeliz’ contributions to the occupational therapy profession was recognised by the Royal College of Occupational Therapists (RCOT) Merit award in September.
Understanding Emotions in a Digital World

Dr Gemma Taylor and Dr Sarah Norgate recently received research funds to explore whether children can develop emotion understanding from digital content. According to the World Happiness Report (Helliwell et al., 2017), the best predictor of child emotional health was the mental health of the child’s primary caregiver. This is highly important as a high proportion of children’s earliest social interactions with caregivers are now digitally mediated. For instance, children under the age of 3 years are exposed to digital media on a daily basis (Taylor, Monaghan & Westermann, 2017, see press release here). Yet what is surprising is that no previous research has examined the acquisition of emotion learning within the context of the ‘digitised dyad’.

We created digital videos designed to portray basic emotions such as “happy” and “sad” using child friendly story lines with the support of our team Dr Ben Short and Michael Lomas and two students from Media Broadcast. These videos were also made into a storybook with the help of our fantastic psychology technician Sam Royle. Gona Mustafa, was our research assistant, a recent Salford graduate who went out to local nurseries to start collecting data from children aged 2-4 years and testing will continue in the Developmental Lab over the coming year.

Dr Gemma Taylor has also been awarded a VC scholarship over the next year and will be investigating the role of digital reinforcement children’s selective imitation of ‘desirable’ and ‘undesirable’ actions in nurseries around Salford and in our Developmental lab.

Success stories

Two research students have successfully completed their research degrees with us Dr Fatemah Sani Pour and Dr John Hudson (now appointed at Staffordshire University), we wish them well. Congratulations to two supervision teams - Dr Linda Dubrow-Marshall, Dr Peter Eachus and Dr Ashley Weinberg.

Sharon Coen has been invited as an expert speaker to the Royal Society event on Filter Bubbles (a blog post on A Psychological Perspective on Filter Bubbles will appear on the Society’s Website at the end of September). She will also participate in two events organised by the British Academy and the Oxford Internet institute & Speakers’ Corner Trust on October 9th and 20th respectively, where she will talk about her research on the role of social media in online political discussions and youth political engagement.

Political psychology team members have successes including: Dr Ashley Weinberg lead a symposium on the Psychology of Politicians and Jo Meredith lead a symposium presenting research on Brexit coverage. The latter featured a talk on media coverage of experts during the Brexit debate by Sharon Coen, Ben Short and others.

New Staff

We are excited to welcome a new member Dr Lauren Owen (Lecturer in Psychology) to our team in September 2017, Lauren’s research publications are in nutrition and appetite. Dr Sarah Norgate is due to take adoption leave in September 2017, and the team thank her for her contributions, we are delighted to welcome Dr Sharon Coen to lead the Applied Psychology research programme in 2017/18, please get in touch with S.Coen@salford.ac.uk
A number of the group took part in the Health, Wellbeing and Society Research Showcase on the 31st May 2017. At the event we showcased some of our current occupational therapy research which has an emphasis on:

- Improving health and wellbeing in later life, including living well with dementia and tackling loneliness.
- Managing widowhood and caregiving, and housing adaptations to increase independence and safety.
- Work and vocational rehabilitation, and achieving occupational balance across the life course.
- Professional issues including emotional intelligence, service user engagement and leadership.

One of our tables provided examples of our research informed teaching which is embedded in our undergraduate and postgraduate occupational therapy programmes. In addition two of our stands displayed Jo Webb’s research around moving and handling with industry partners including Klip-2-lift (innovative sling technology) and A1 Risk Solutions (online manual handling tool evaluation). Tours of our innovative Activities of Daily Living Simulation Suite, which is used for both research and teaching, were also available on the day.

Success Stories

Dr Rachel Russell recently held a research dissemination event at the Royal College of Occupational Therapists and at Queen Margaret’s University in Edinburgh. The event was funded through a University of Salford Research Impact Award. The event was an opportunity to share the research Rachel has done on the Home Modifications Process Protocol (HMPP) and it helped her to identify ways in which the HMPP can be marketed and disseminated to more occupational therapists.

Rachel has also been awarded a Santander Travel grant to enable her to travel to San Francisco for the IAGG conference this year. In addition Rachel was invited and funded in August 2017 to give the keynote speech at the annual Home Modification Australia conference in Sydney. Whilst in Australia Rachel was also invited to present a webinar for Occupational Therapy Australia, the professional body for occupational therapists in this country. The Home Modification Process Protocol, developed from Rachel’s PhD research, was the focus of the webinar presentation. Attracting over 60 participants, Rachel hopes to develop further the material presented at the webinar into an on-line training tool for occupational therapists wanting to implement the protocol in clinical practice.

Carol Bartley and Melanie Stephens (Nursing) have won a grant of £600 from the ESRC Festival of Social Science committee for their project-‘dissemination of the seating guidelines to the public’ which they will be completing during the science festival in November. They will be outside Manchester Piccadilly train station on Saturday 4th November 2017 with a Careflex chair, pressure mapping system and 2 of the TVS trustees. They will be engaging the public and pressure mapping bottoms and handing out their shortened version of the guidelines (in pamphlet form) to the public to educate the public in this important area.

Staff leaving

Dr Tracy Collins recently accepted a senior lectureship at Northumbria University which will commence in November 2017. We wish her all the best in this new venture. Jo Webb will be replacing Tracy as lead for the occupational therapy research group.

You can find out more and keep up to date with our research and PGR opportunities via our webpage and twitter, @UoSOT and brochure.
Foot sensory work makes waves at ISPGR in Florida.

Dr Kris Hollands led the Health Sciences team at a special ISPGR session called “Good Vibrations”, focusing on the potential for sensory stimulation of the foot to aid improvements in balance and gait. The special session was chaired by Prof Tim Ingles of University of British Colombia, and kicked off with Dr Leah Bent talking about skin receptors and her work on recording and interpretation of foot nerve signals. Salford PhD student Jo Reeves (left in picture) recently returned from a 6 month study visit to the University of Guelph (Canada) with Dr Bent (centre of picture), all part of a wider collaboration initially supported with an internal Santander grant. Prof Chris Nester added a foot biomechanics perspective to the session and Kris talked on the clinical context for use of foot sensation, e.g. in stroke. This compliments her work with Dr Tracey Williamson and Dr Anita Williams in a Brain Injury Trust grant, where the team have been mapping foot sensory loss in people with stroke down at rehab charity BASIC (in Salford) and interviewing patients about their experiences of sensory loss and their attitudes towards sensory stimulation as an intervention.

Kris and Prof Nester are also working with the Medical Physics team at Salford Royal on early prototypes for a vibrating insole, and part way through a systematic review of the evidence for the effect of sensory insoles on balance and gait.

Next step is to draw all this work together into future plans for both technology and lab and clinical studies around augmented sensory stimulation and balance and gait.

Success Stories

Great progress for Great Foundations

Dr Carina Price has been kept busy with babies, already achieving recruitment of baby 20 this year. Carina blogged about her visit to Dr Karen Adolph at New York University as part of the Great Foundations project, and further blogs and guidelines for parents are in planning. Carina has also published the first paper from the project: Biomechanics of the infant foot during the transition to independent walking: a narrative review.

Charlotte Growcott and Lisa Hodgson (at University of Brighton) have made great progress reviewing thousands of web site search results concerning childrens feet and also interviewing health professionals about their care of children and their feet. Publications due in 2018!

The Great Foundations twitter feed (@GrtFoundations) has hit its 200 followers target and was a great platform for showcasing the project efforts down on the south coast.

Dr Stewart Morrison and Juliet Myclymont hosted a British Science Festival event in the Brighton Clarks store. The feed also contains examples of work by the project artist and Salford orthotics alumni Suman Kaur, winner of the BBC Big Painting Challenge, see @SumanKaurArt

Dr Ana Martinez has now joined the Small Steps project team working with Carina Price in her “Baby lab”. Having graduated this summer (see picture!) Ana has worked in the baby lab, on the national orthotic survey and recently with Thailand based PhD alumni Dr Pornsuree Onmanee on a systematic review of evidence for the effects of stimulating insoles. Ana will also be getting involved in CAD/CAM developments related to the Podiatry undergraduate course.

Continues below
Congratulations to (Dr!) Effy Evangelopoulou on successful defence of her thesis. Effy is now working as a science teacher with the Researchers in Schools (RIS) programme – an initiative that uses doctoral holders and their skills to increase the number of pupils from underrepresented backgrounds who are accepted to study in highly selective Universities.

Prof Chris Nester has been appointed as professional lead for a Priority Setting Partnership (PSP) funded by the William H Scholl Fund. The PSP process is run by the James Lind Alliance and has become a trusted platform for independent development of research priorities. It uses literature reviews and surveys of clinicians and patients to establish the research priorities in specific health areas. It has been employed by cancer, asthma and similar major charities to set out funding priorities and guide future calls for proposals. The Scholl fund will be using the PSP results to set its own strategic direction from 2019 and is expecting to partner with other funding agencies to co-fund foot health research in the future. Andrea Graham will be working with Chris on this from January 2018.

Finally, congratulations to Jenny Anderson, who won the Young Investigator Award at the ISB Footwear Biomechanics Group meeting in Brisbane this summer. Her work on understanding the biomechanics of standing and footwear effect “stood” out from the usual mix of work being presented. Jenny is already set to secure employment at her KTP host Toffeln Footwear and discussions on a second KTP are at an advanced stage.

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Physical Activity & Health
Theme Lead- Dr Stephen Pearson

Dr Stephen Pearson and Martyn Matthew have just secured a 73K grant from GMFRS to investigate non-invasive estimates of firefighter core body temperature. This project has just commenced and will involve gathering data on firefighters to examine if we can utilise heart rate to enable real-time monitoring of firefighter core temperature during firefighting duties.
Measurement & Quantification of Physical Behaviour
Theme Lead- Prof Malcolm Granat

Wearable Technologies
Dr Alex Clarke-Cornwell
The Annual European Congress of Rheumatology (EULAR), Madrid, June 17

EULAR is renowned for exchanging scientific and clinical information, for both scientists and health professionals who work in the field of rheumatology; the congress attracts over 15,000 delegates.

Wearable technologies, including research grade accelerometers (e.g. activPAL™) and consumer wearables (e.g. FitBit), are increasingly being used in research, not only to measure physical behaviours but may also be useful in facilitating and monitoring behaviour change. The validity and practicality of objective and subjective techniques to measure physical behaviour have been widely reported; however, there is no gold standard that is valid, accurate, reliable and also practical.

Alex gave an overview of wearable technologies used in research: what they can (and can’t) measure, the types of data obtained from these devices, the best statistical approaches to use and practical aspects to consider when using them in research studies. Alex also discussed the application of accelerometers in musculoskeletal research; for example, in a study* evaluating an exercise intervention in osteoarthritis patients, the data from the accelerometer showed an improvement in gait speed in a free-living environment that would not have been observed from self-reported methods.

Successes
Recently we have been awarded an NIHR grant in collaboration with the University of Leicester “What are effective interventions to reduce sedentary behaviour?”, which will look at workplace interventions, based around the standing desk, to reduce sedentary behaviour. The project will start in March 2018, and has total recover costs of £890k with £230k coming to Salford. The applicants from Salford were Alex Clarke-Cornwell and Malcolm Granat.

Staff coming and going
Two of our group members, Dr Chris Pickford and Dr Sathish Sankarapandi have now left. Chris has been with us for two years working on dementia related projects and now has moved to an industry post. Sathish worked on our falls monitoring project, funded by the Peel Trust, which ended this July. Sathish has moved to another research post at the University of Essex. The group wishes them both success in the future and will miss their valuable contribution to all aspects of the group’s activities.

*This was a study that investigated the effect of a lower limb exercise programme on objectively measured physical activity in individuals with knee osteoarthritis, by Jimmy Molyneux (PhD candidate at the University of Salford).
During trimester 2 of 2016-17 Dr Paul Comfort conducted a strength and power training intervention as part of an International Collaboration Grant awarded by the National Strength and Conditioning Association (NSCA), with Dr Timothy Suchomel from Carrol University, Wisconsin, USA, as coinvestigator. The study embraced the University ICZ strategy by involving undergraduate (Sports Science), postgraduate taught (Strength and Conditioning) and PhD students (Chris Thomas and Tom Dos’ Santos) as part of the research team, with additional input from Dr John McMahon. Components of the research were embedded into the MSc students’ research projects and placements were provided for both undergraduate and postgraduate students, as strength and conditioning coaches. Participants were recruited from local professional sports teams, collegiate athletes at Carrol University (USA) and Team Salford athletes.

Paul presented preliminary results of this study as part of his presentations at the NSCA National Conference and the United Kingdom Strength and Conditioning Association National Conference, with the first manuscript due to be submitted imminently. In addition, Dr Suchomel has already commenced data collection for a follow up training intervention, with data collection due to start at the University of Salford during trimester 2 of this academic year.

These projects have built on collaborative research between Dr Comfort and Dr Suchomel over the past 5 years, with a recent applied review of this specific theme of research, published in January 2017 already receiving a top 5% allometric score and the article already being the Staff Success Stories

Drs Paul Comfort, Paul Jones and John McMahon have been commissioned by Routledge to edit and co-author a text entitled Performance Assessment in Strength and Conditioning, which is due to be published in September 2018. This follows another text entitled Advanced Strength and Conditioning: An evidence based approach, edited by Dr Anthony Turner (Middlesex University) and Dr Paul Comfort, with contributions from numerous internationally renowned practitioners and researchers, which is due for release on the 25th October 2017.

Student Success Stories

Chris Thomas has recently been appointed as a lecturer in Sports Science at the University of South Wales. Chris is in the final stage of his PhD, investigating change of direction performance under the supervision of Dr Paul Jones and Dr Paul Comfort. The appointment is a testament to the applied experience that Chris obtained during his studies at the University of Salford, along with his outstanding research profile that he has developed since starting his MSc Strength and Conditioning and progressed throughout his Doctoral studies.
A showcase of the work of the Health Sciences ECR’s was presented on the 1st June 2017. The showcase allowed ECRs in the school to present their work and talk about the variety of research journeys and challenges faced when establishing a career in research. The day included two keynote talks from external speakers – Dr Jennifer Lord who is an alumni of the university and Dr Paul Kendrick from the University acoustics research centre. In addition Joanne Caldwell provided an overview of Athena Swan in relation the school and ECRs and Dr Kristen Hollands provided an overview of how she has progressed through her career to become a senior research fellow. Finally there were four talks from current ECRs within the school – Dr Lucy Walton, Dr Rachel Russell, Dr Gemma Taylor, Dr Chris Pickford. The event ended with an opportunity to network with those who attended and the speakers.

ECR group members had the opportunity to produce showcase posters including short biographies and case studies of current research with 19 posters displayed on the day. The posters have since been converted into a digital brochure, which can be used to advertise the range of research and researchers within the school of health sciences. The ECR showcase brochure can be found [here](#). This is a living document and will grow with the changing membership of the ECR group. Feedback from members and attendees was positive, however a need to fully engage other members of the school was highlighted. To build on this event in the early summer of 2018 a second ECR Day will be run to bring members together and provide training and discussions across core research skills (funding, writing, networking).

**New research project news**

Great Foundations is a collaborative initiative being led by the Universities of Salford and Brighton. Over the next 5 years we will be doing research to understand parental views related to children’s foot health and investigate what health and industry professionals know and think about children’s feet. To learn more visit - [https://greatfoundations.org.uk/](https://greatfoundations.org.uk/)

**ECR Awards**

Dr Gemma Taylor was recently awarded one of the Vice-Chancellor’s Early Career Research Scholarship, August 2017-18. The project is titled Children’s selective imitation of desirable and undesirable actions: The role of digital reinforcement. The study will investigate the role of digital reinforcement on 3 year old children’s observational learning and selective imitation. The puzzle imitation task (Dickerson et al., 2013) will be used to measure social learning. Children will watch a video of an adult assembling the puzzle and for some children a live or video emoter will show disapproval of the actions. Children’s action imitation will then be measured.

**Upcoming ECR Meeting Program**

November 8th – Enterprise and industry engagement with talks from:

- Paul Cihlar, KTP development manager - details of four main KTP areas and industry linked projects.
- Joe Flanagan, Business development manager - details on consultancy and non-research work.
- Sam Bird - An update on research centre evaluation and feedback from ECR interviews.
My name is Faisal and I am a second-year PhD student in the Diagnostic Imaging Research Group. I am the new Post Graduate Research (PGR) student representative for the academic year 2017/2018. One of the main responsibilities of a PGR student representative within our school is to gather views and feedback from fellow postgraduate researchers and communicate these to the postgraduate research committee. These views can be whatever might affect the PGRs researching experience (e.g. issues with training sessions, teaching opportunities…etc.).

Based on last year’s annual evaluation, in general PGRs acknowledged several admirable aspects of their PGR experience (e.g. supervision meetings, resource availability). However, some of the researchers mentioned the lack of social activities and communications between PGRs across Health Sciences. Therefore, more social activities have been planned for this year where the researchers will be given opportunities to get to know each other’s research (or simply each other’s culture since they have come from different backgrounds).

On a different matter, the monthly seminar was poorly attended by the PGRs last year. These seminars are meant for researchers to gather every month and talk about their experience, communicate with their peers, and pass knowledge to less experienced researchers (e.g. first-year students). As a result, an effort will be put to promote these seminars and I urge my fellow researchers to attend and participate.

A new PGR seminar programme has been developed and tailored for Health Science Students, this includes a calendar of social events. PGR writing workshops will also follow in the New Year!

Don’t forget to join the community on Facebook

**Upcoming PGR Seminar Program**

- **15th November** – Talk about your research
- **6th December**- Using Social Media to develop a professional and academic profile
  - **Social:** Christmas market
- **10th January**- Writing for publication
- **14th February**- REF: What’s it all about?
  - **Social:** bring and share cultural delicacies
- **14th March**- Topic specific discussions
- **18th April**- Life after the PhD
- **16th May**- Data analysis workshop
- **13th June**- Student presentations
  - **Social:** dinner in Bryan’s suite