

Conference programme

Annual Research Conference - ARC2018

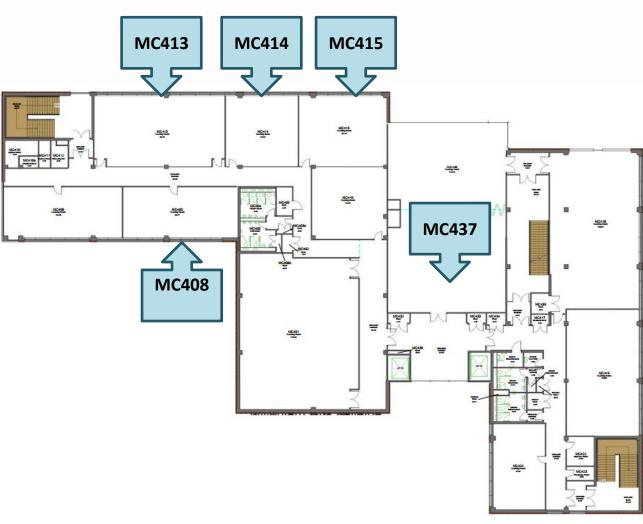
Monday 11th & Tuesday 12th June 2018



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Day One: Monday 11th June 2018 Research Staff Conference

Schedule of Events



Schedule of Events – Day 1 a.m.

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Time	Activity				
09:30	Registration & Refreshments (MC327)				
09:45	Welcome & Opening – Professor Silke Machold, Dean of Research (MC001)				
09:50	Keynote: Responsible Research - Prof Peter McKiernan, Professor of Management in the Department of Strategy and Organisation, University of Strathclyde (MC001)				
10:30-1:15					
	Group 1 (MC414)	Group 2 (MC415)	Academic Institute of Medicine (AIM) (MC408)	Symposium 1: Psychology of the Person (MC413)	
10:30	Open Access Publishing; Patients and Research – Or Why researchers should make sure their publications have an open access option – Prof Carol Bond (FEHW)	Migrant earnings assimilation and family connections. Does marrying natives improve labour market outcomes? – Dr Chiara Paola Donegani (FoSS)	Introduction - Prof Baldev Singh & Dr Simon Dunmore	Lurking towards empowerment: Explaining propensity to engage with online support groups and its association with positive outcomes - Dr Chris Fullwood,	
10:50	UK Welfare reform: Implications of the transfer of DLA to PIP for people with a mild learning disability - Dr Liz Tilly (FEHW)	Modelling the Response Time to Multiple-Choice Questions in High- stakes Medical Exams – Dr Le An Ha & Dr Victoria Yaneva (RIILP)	The role of Planar Cell Polarity signalling in Autosomal Recessive Polycystic Kidney Disease (ARPKD) - Dr Goggolidou Paraskevi	It's not just 'What' you do, it's also the 'Way' that you do it: Patient & Public Involvement in the Development of Health Research - Dr Wendy Nicholls	
11:10	"#vaccineswork": Expressions of evaluation in European public health policy Twitter micro-blogs – Dr Debbie Orpin (FoA)	Game design and participation in the performance of minimalist music – Dr Richard Glover (FoA)	The glycation gap: a potential source of clinical error and its possible biochemical explanation – Prof Baldev Singh & Dr Simon Dunmore	Sense of control in videogames versus 'the real world' - Dr Joanne Lloyd	
11:30	Loneliness: Creative Explorations – Dr Bianca Fox (FoA)	Disputed Authorship Techniques for Some Conclusions to "Edwin Drood" - Dr Michael Oakes & Dr Le An Ha (RIILP)	Helicobacter pylori infection modulates iron absorption in patients with iron deficiency anaemia - Dr Hafid Omar Al-Hassi (FSE) & Professor Matthew Brookes (RW NHS TRust)	A systematic review of resilience in adults with an intellectual disability - Elizabeth Raye	
11:50	Distance travelled: Exploring the impact of a Business School mentoring programme. – Dr Jenni Jones (FoSS)	Solution based learning with Agile methods – Karl Royle (FEHW)	Excimer Laser & Needling Technique: New Effective Treatment of Moderate to Severe Vitiligo – Dr Mohammed Al Abadie	Personality and Motivations for use as Predictors of Facebook Behaviours - Dr Lisa Orchard	
12:10	Improving mental health and well-being in young people: examining the effectiveness of football – Dr Kathryn Leflay (FEHW)	Crises of Responsibility: Daniel Berrigan SJ in 1970 – Dr Benjamin Halligan (RPU)	Repurposing existing drugs for cancer treatment: New hope for cancer patients and opportunities for pharmaceutical companies – Dr Vinodh Kannappan	The Blind Leading the Blind: A Re- examination of the Efficacy of Anonymous Marking for Reducing Group Attainment Differences - Dr Danny Hinton	
12:30	Making sense of feedback: a staff- student collaborative approach to reducing the staff-student understanding gap – Christopher Sellars, Zsuzsa Galloway (FEHW); Paul Brownbill, Crispin Dale (FoA) Lunch Break & Networking (MC437)	Employing a narrative inquiry approach to ascertain the views of lesbian parents in accessing and receiving healthcare for their adopted children - Lucy Kelsall- Knight (FEHW)	Ticagrelor: An Analysis and Comparison of Drug Handling in Patients Who Present Following a Major or Minor Heart Attack - Nazish Khan	Towards integrated lifespan models of social and emotional attachment - Dr Dean Petters	
12.30-1.30	Lunch break & Networking (NC437)				



Schedule of Events – Day 1 p.m.



Group 1 (MC414)	Group 2 (MC415)	Academic Institute of Medicine (AIM) (MC408)	Applied Psychology of Health & wellbeing (MC413)
When old meets new: evolutionary ecology of formalin fixed museum specimens – Dr Simon Maddock (FSE)	Demonstrating impact and the responsibility of the researcher – Prof Andy Lane (FEHW)	Potent Antiplatelet Agents and their Effect on Outcomes in Patients Who Present Following a Major Heart Attack - Nazish Khan	Self-compassion, Work- Family Conflict and Organisational Commitment of healthcare workers. – Dr Debbie Stevens- Gill
Re-Writing by Fax: Ray Bradbury and Global TV Production – Dr Phil Nichols (FoA)	Lies, Damned Lies and the Colourful Artifice of Cinematic Subjectification – Dr Gavin Wilson	Disulfiram targets hypoxia induced stem like cells in Glioblastoma - Karim Azar	The Impact of Emotional Valence on Item- Method Directed Forgetting - Sumera Ahmed
Sound.points Finding a Place to Be - Collaborative responsibilities in music and dance: the composer, choreographer and performer – Dr Chris Foster (FoA)	"It's the man that can gammon the chaplain best – he gets the ticket of leave." Public perceptions of early release licensing systems in England 1853-2018 - Dr David Cox & Mr Joseph Hale (FoSS)	Comparison of the anti-cancer activity of disulfiram and first line anticancer drugs in primary pancreatic ductal adenocarcinoma (PDAC) cells - Ogechi Nkeonye	If gelotophobes smile differently to non- gelotophobes during interviews, can the emphatic underpinning of counselling psychologists enable detection above non-counselling - Trevor Flowers
How is the Early Years Pupil Premium funding being used? - Dr Zeta Brown (FEHW)	Development of biomaterial for the controlled delivery of naturally occurring antimicrobial agents – Dr Wan Li Low (FSE)	Conclusions - Prof Baldev Singh & Dr Simon Dunmore	It is not just who you know: exploring the influence of social and science capital on children's career aspirations - Dr Chao- Hwa (Josephine) Chen-Wilson
Clinical use of Lithium in the management of psychiatric patients with co-morbid renal conditions – Dr Ayman Antoun Reyad (FSE)	Quantum technology: the technology of tomorrow – Dr Fabrice Laussy (FSE)		Exploring the Impact that Media Portrayals of Child Sexual Abuse Survivors have on Survivors Motivation to Disclose Abuse Leanne Kidson
Risk-Aversion or Ethical Responsibility? Towards a New Research Ethics Paradigm – Dr Alan Apperley, Dr Steve Jacobs (FoA)	Assessment of the scripts involved in educational interactions like mentoring and research supervision – Dr Dean Petters		Jumping to Conclusions in Delusional Thinking - Dr Stephanie Rhodes
Choosers: The design and evaluation of a visual algorithmic music composition language for non-programmers – Matt	Coloured photons – Dr Frabrice Laussy & J. C. López Carreño		Delusion proneness and romantic jealousy - Dr Niall Galbraith
Impacts of depression cases and subcases on all-cause mortality in late life - Professor Ruoling Chen and Ms Amanda Rodney (FEHW)	Are computers useful for professional translators? Dr Constantin Orasan (RIILP)		Understanding Honour based violence - Bushrah Banaris
	 When old meets new: evolutionary ecology of formalin fixed museum specimens – Dr Simon Maddock (FSE) Re-Writing by Fax: Ray Bradbury and Global TV Production – Dr Phil Nichols (FoA) Sound.points Finding a Place to Be - Collaborative responsibilities in music and dance: the composer, choreographer and performer – Dr Chris Foster (FoA) How is the Early Years Pupil Premium funding being used? - Dr Zeta Brown (FEHW) Clinical use of Lithium in the management of psychiatric patients with co-morbid renal conditions – Dr Ayman Antoun Reyad (FSE) Risk-Aversion or Ethical Responsibility? Towards a New Research Ethics Paradigm – Dr Alan Apperley, Dr Steve Jacobs (FoA) Choosers: The design and evaluation of a visual algorithmic music composition language for non-programmers – Matt Bellingham (FoA) Impacts of depression cases and subcases on all-cause mortality in late life - Professor Ruoling Chen and Ms 	When old meets new: evolutionary ecology of formalin fixed museum specimens - Dr Simon Maddock (FSE)Demonstrating impact and the responsibility of the researcher - Prof Andy Lane (FEHW)Re-Writing by Fax: Ray Bradbury and Global TV Production - Dr Phil Nichols (FoA)Lies, Damned Lies and the Colourful Artifice of Cinematic Subjectification - Dr Gavin WilsonSound.points Finding a Place to Be - Collaborative responsibilities in music and dance: the composer, choreographer and performer - Dr Chris Foster (FoA)Lies, Damned Lies and the Colourful Artifice of Cinematic Subjectification - Dr Gavin WilsonHow is the Early Years Pupil Premium funding being used? - Dr Zeta Brown (FEHW)Pavelopment of biomaterial for the controlled delivery of naturally occurring antimicrobial agents - Dr Wan Li Low (FSE)Clinical use of Lithium in the management of psychiatric patients with co-morbid renal conditions - Dr Ayman Antoun Reyad (FSE)Quantum technology: the technology of tomorrow - Dr Fabrice Laussy (FSE)Risk-Aversion or Ethical Responsibility? Towards a New Research Ethics Paradigm - Dr Alan Apperley, Dr Steve Jacobs (FoA)Assessment of the scripts involved in educational interactions like mentoring and research supervision - Dr Dean PettersChoosers: The design and evaluation of a visual algorithmic music composition language for non-programmers - Matt Bellingham (FoA)Are computers useful for professional translators? Dr Constantin Orasan (RILP)	When old meets new: evolutionary ecology of formalin fixed museum specimens – Dr Simon Maddock (FSE)Demonstrating impact and the responsibility of the researcher – Prof Andy Lane (FEHW)(MC408)Re-Writing by Fax: Ray Bradbury and Global TV Production – Dr Phil Nichols (FoA)Lies, Danned Lies and the Colourful Artifice of Cinematic Subjectification – Dr Gavin WilsonDisulfiram targets hypoxia induced stem like cells in Glioblastoma - Karim Azar Dr Gavin WilsonSound.points Finding a Place to Be - Collaborative responsibilities in music and dance: the composer, choreographer and performer – Dr Chris Foster (FoA)Lies, Damned Lies and the Colourful Artifice of Cinematic Subjectification – Dr Gavin WilsonComparison of the anti-cancer activity of disulfiram and first line anticancer drugs in primary pancreatic ductal adenocarcinoma (PAC) cells - Ogechi NkeonyeHow is the Early Years Pupil Premium funding being used? - Dr Zeta Brown (FEHW)Development of biomaterial for the controlled delivery of naturally occurring antimicrobial agents – Dr Wan Li Low (FSE)Conclusions - Prof Baldev Singh & Dr Simon DunmoreClinical use of Lithium in the management of psychiatric patients with co-morbid renal conditions – Dr Ayman Antoun Reyad (FSE)Assessment of the scripts involved in educational interactions like mentoring and research supervision – Dr Dean PettersRisk-Aversion or Ethical Responsibility? Towards a New Research Ethics Paradigm – Dr Alan Apperley, Dr Steve Jacobs (FoA)Assessment of the scripts involved in educational interactions like mentoring and research supervision – Dr Frabrice Laussy & J. C. López CarreñoImpacts of depression cases and subcases on all-cause mor



Keynote speaker





Professor Peter McKiernan Professor of Management University of Strathclyde

Responsible Research in Business and Management

In 2011, Professor McKiernan joined Strathclyde Business School as a Professor of Management in the Department of Strategy and Organisation, having previously held Professorial positions at the Universities of Warwick, St Andrews, Malta and the Sir Walter Murdoch Chair in Management and Governance at Murdoch University, Australia. He holds a Bachelors degree in Economics, a Masters degree in Business Analysis and a Doctorate in Corporate Strategy.

Peter's main research focus is on how organisations learn about how their future might unfold and how they might prepare their current strategies to cope. Research outputs have covered organisational turnaround, fast growing SMEs, sector studies (e.g., Jute, Automobiles) and public policy.

He has worked with a range of blue chip organisations around the world in strategy and marketing e.g., IBM, BP, Philips, Jardine Matheson, Reed-Elsevier, Siemens-GPT, Marks and Spencer. Additionally, he has held many Board positions in the private and public sectors e.g., the Association of Business Schools (ABS), and chaired those of major public bodies e.g., West Lothian FE College. He has directed a host of scenario planning projects on 4 continents for governments, cities, regions and organisations in the private, public and third sectors.

Peter was awarded an inaugural Companionship of the Association of Business Schools; in 2013, he was winner of the CEEMAN "Institutional Champion of the Year" prize and in 2015, BAM honoured him with the Richard Whipp Life Time Achievement Award.



Smart Concept Fund Workshop





Time: 10:30 – 1:15 (10:20 registration) Venue: MC224 To book visit: <u>https://www.eventbrite.com/o/smart-</u> <u>concpet-fund-17330648239?s=85693755</u>

Protecting and Commercialising your research

Looking to demonstrate impact?

Aimed at active research staff, this session is focused upon building an understanding of how to achieve impact through technology commercialisation.

During the session we will:

- Introduce a new type of ERDF grant that can be used to assess the commercial potential of your research
- Identify the technology commercialisation pathways that enable you to demonstrate research impact: spin-outs, licensing, patenting and industrial partnerships.
- Discuss the role of intellectual property rights protection in technology commercialisation
- Provide guidance on how to balance the need to protect your intellectual property and achieve publication.

The session will be delivered by members of the University's technology transfer office and fully qualified patent agents.



European Union European Regional Development Fund







Professor Carol Bond

Professor of Learning and Teaching, Health in HE Faculty of Education, Health and Wellbeing <u>carol.bond@wlv.ac.uk</u>

Open Access Publishing; Patients and Research – Or Why researchers should make sure their publications have an open access option.

As all academic researchers know the quick answer is that REF requires it. There is however a much more important reason why we should all endeavor to make sure our work is available through an open access route as soon as possible.

Modern healthcare in many countries has some version of 'patient centred care'. The terminology and details may vary but self management and patients as partners in their own care are central tenets. To enable this patients and their healthcare professional team all need equal access to reliable information.

Before the wide availability of the Internet, health information was the domain of healthcare professionals and librarians. One of the early champions of the participatory healthcare movement, Tom Ferguson (2007) recounts a tale of a patient wishing to know more about a new treatment recommended by his doctor tracking down a journal article, and then having to resort to telephoning the hospital library pretending to be his doctor and asking for it to be left out for him to collect as he had no other way of accessing it.

Neatly all academic and professional journals are available online however this is frequently behind pay walls and therefore unavailable to people who didn't have access through their organizations, or the money to buy their own access. This includes healthcare professionals in lower income countries and patients.

When thinking about where to publish research academics often think about the journals that will give the highest citation rates, or where professional peers will see our research. We should however also think about how our patients will be able to access our research, and about our peers without our organisational subscriptions. Our choice of publishers and increasing use of institutional repositories means that researchers have the power to make sure that all potential end users of our research can freely access it.





Dr Liz Tilly (ERAS Fellow) Senior Lecturer in Social Care Faculty of Education, Health and Wellbeing Liz.Tilly@wlv.ac.uk

UK Welfare reform: Implications of the transfer of DLA to PIP for people with a mild learning disability

As part of the ongoing UK Government's welfare reform programme, the Department for Work and Pensions (DWP) is changing its main disability welfare benefit. Starting in 2013 PIP (Personal Independence Payment) is replacing DLA (Disability Living Allowance). The transfer was originally planned for completion in 2017, however this transition period is now extending into 2018.

This research project, grounded in disability rights and the social model of disability, explored whether people with a mild learning disability lost or gained disability welfare benefit income following their reassessment. The research project also explored whether access to and type of support received during the reassessment process affected the assessment outcome, and what impact, for those affected by a change of income have on independent living and the ability to live a full life in the local community. This hidden population already face financial hardship due to the combined effect of not being eligible for learning disability services, living long-term on welfare benefits and having poor budgeting skills.

This presentation will share findings from the research project and discuss implications for policy and practice.







Dr Deborah Orpin (ERAS Fellow) Lecturer in English Language and Linguistics Faculty of Arts D.S.Orpin@wlv.ac.uk

"#vaccineswork": Expressions of evaluation in European public health policy Twitter micro-blogs

A recent World Health Organisation (WHO) report expressed concern at increasing evidence of inadequate vaccine coverage in some parts of Europe. European public health agencies are thus making a concerted effort to encourage vaccine uptake across the region. Many use social media platforms, such as Twitter, as a tool for communication in this enterprise.

Two such bodies are the WHO Europe Vaccine-preventable Diseases and Immunization programme (WHO Europe VPI) and the European Centre for Disease Prevention and Control's Vaccine Preventable Diseases team (ECDC VPD). The WHO Europe VPI and ECDC VPD Twitter microblog writers thus have the task of disseminating, to a diverse audience, knowledge about epidemiology, whilst exhorting the audience to action.

An important resource in persuasive discourse is the language of evaluation, that is, language which signals to the reader what is valuable, important, relevant, and so on. This presentation describes the various linguistic strategies the WHO-Europe and ECDC VPD Twitter authors use to make rhetorical appeals to their target audience whilst overcoming the constraints of the microblog medium and tailoring information about science to non-specialists. The work reported here represents a contribution to the growing body of research into the communication of science in the public sphere and has potential relevance to scientific popularisation writers.





Dr Bianca Fox (ERAS Fellow) Senior Lecturer in TV, Broadcasting and Journalism Faculty of Arts B.Fox@wlv.ac.uk

Loneliness: Creative Explorations

With the Campaign to End Loneliness launched in 2011, the BBC documentary The Age of Loneliness (2016) and then the launch of Jo Cox's Commission on Loneliness in January 2017, loneliness constantly makes the headlines and tackling it is generating intense debates. The importance of this modern disease was also highlighted by the publication of the Jo Cox Commission report in December 2017 and the appointment of a minister for loneliness in January 2018.

Loneliness is something people experience at any age, as it is a basic fact of life. However, research conducted so far shows that when discussing loneliness, the assumption is that we are talking about elderly people, usually ignoring young adults who also suffer from loneliness. The prevalence and intensity of loneliness are in fact greater in young adults than in any other age group. Moreover, it can be argued that the extent of loneliness is U-shaped when mapped graphically against age, indicating that younger and older people have the highest risk of experiencing loneliness. Even so, to date, not much is known about loneliness in young adults. With the exception of only a few studies, research in loneliness constantly ignores this demographic and fails to address loneliness that affects young people. In recent years loneliness has been associated with Internet addiction, mobile phone use and mobile phone addiction.

This research examines loneliness among young people (18-34) to discover if/how loneliness is linked to their use of social media and mobile phones. The presentation will explore stories of loneliness and new methodological approaches to the analysis of loneliness in the age of mobile and social media and will report on data collected between April and June 2018.







Dr Jenni Jones (ERAS Fellow) Senior Lecturer in HR & Leadership Faculty of Social Sciences jenni.jones@wlv.ac.uk

Distance travelled: Exploring the impact of a Business School mentoring programme.

The purpose of the Teaching Excellence Framework is to 'drive UK productivity by ensuring a better match of graduate skills with the needs of employers and the economy.' (Department for BIS) One of the three key elements of the 'Student Outcomes and Learning Gain' area is that students acquire knowledge, skills and attributes that prepare them for their personal and professional lives (HEFCE, 2016).

In respect of mentoring programmes generally, there are a variety of articles written about mentoring programmes within HE, but 'the evaluation of mentoring schemes is minimal' and as such, there are very few studies looking at the longer term impact of such programmes. There are currently no studies looking at the impact for graduates beyond their time at the University.

Our Business School Student Mentoring initiative has been running for 6 academic years and is aimed at giving final year undergraduate Business students the opportunity to be supported by local Directors (as mentors) towards developing their employability skills and future job prospects. All the 150 students who had engaged in this scheme were contacted and where possible, recorded telephone interviews were carried out. Also, the progression statistics for all the students involved in the mentoring programmes i.e. from year 2 to year 3, were analysed. The results showed that;

- The student mentees learnt new knowledge, skills and affective-related learning from being mentored in their final year
- This learning benefitted them whilst at University, as it significantly improved their progression and grade profile in their final year
- This learning helped them towards securing their current job
- They are unsure how this learning might benefit them in their future career but felt better placed to cope and work towards this

It is hoped that this research will help towards understanding more about how ours and other Universities can positively impact the progression of students both within and outside the University.







Dr Kathryn Leflay (ERAS Fellow) Senior Lecturer in Sport Sociology Faculty of Education, Health & Wellbeing Kath.Leflay@wlv.ac.uk

Improving mental health and well-being in young people: examining the effectiveness of football. An Evaluation of the Upfront project

Mental health in the young is growing area of concern. Depression, low self-esteem and anxiety are common mental health issues among adolescents. Sport interventions are argued to have the potential to address social issues faced by young people. Mental health and well-being has become a more overt agenda within sporting policy recently. This is particularly evidenced through the publication of the 2016-2021 Sport England strategy: Towards an Active nation, where specific reference is made to developing a better understanding of the role sport can play in promoting mental well-being.

The current study collected data for a new classroom based sport intervention called 'Upfront' which is a joint venture between Kaleidoscope and the Albion Foundation. The Upfront project uses football as a vehicle to promote mental wellbeing and to provide a safe forum to talk about mental health with young people. The aim of the project is to raise awareness of emotional health, give young people the tools to help regulate dysfunctional emotions and maintain positive well-being.

The aim of the research project was to gain an understanding of what worked well and why it worked. Qualitative methods were drawn upon in order to develop an in depth understanding of how the Upfront project impacts on participants' mental health and well-being. An adapted self-efficacy scale was used pre and post intervention to measure any changes that had occurred over the programme. This was followed up by the use of semi-structured interviews which aimed to capture the voices of the participants, teachers and the leaders responsible for the delivery of the programme. The research will develop recommendations for the further development of the Upfront programme.





Dr Chris Sellars, Deputy Director for the Institute of Sport (FEHW); Zsuzsa Galloway, Senior Lecturer in Sports Coaching (FEHW); <u>Paul Brownbill</u>, Senior Lecturer in Drama (FoA); <u>Dr Crispin Dale</u>, Principal Lecturer Learning and Teaching (FoA)

Making sense of feedback: a staff-student collaborative approach to reducing the staff-student understanding gap.

The aim of this staff and student collaborative project was to engage students and staff in designing, delivering and evaluating an intervention to reduce the 'understanding-gap' between how staff and students make sense of the narrative feedback that accompanies a summative assessment grade. The approach adopted a theoretical framework rooted in attribution theory (Heider, 1944; Weiner, 1979), which has been extensively used to understand 'explanations' (which feedback can be understood to be) and 'actor-observer differences' and which may here help illuminate differences in student-staff explanations of grade-awarding and performance. Ultimately, this work is perceived to have the potential to enhance student experience and progression, as well as helping staff and students to work more collaboratively for the benefit of both parties.

The first stage of the project was to undertake separate focus group interviews with members of staff from two departments and with groups of L5 students from those departments in order to identify: how both sets of participants view feedback, what makes for effective feedback, the challenges with providing/receiving feedback and how students make sense of this feedback. These data are to be used to help inform the development of an intervention for staff and students to help narrow the understanding gap.

This presentation shares the framework for this project and a summary of the initial focus group data to showcase some of the major challenges facing staff in proving feedback and students with making sense of it. Major themes identified include: understanding terminology; personalisation; feedback and feedforward; more than a grade. These are briefly discussed in relation to the proposed intervention.

Some details of how this information is to be used in the delivery of a subsequent intervention are also provided. The results of the intervention and the implications for future feedback provision will be presented via subsequent dissemination.







Dr Simon Maddock (ERAS Fellow) Lecturer in Conservation Genetics Faculty of Science and Engineering S.Maddock@wlv.ac.uk

When old meets new: evolutionary ecology of formalin fixed museum specimens

Museum specimens have long been a valuable resource for understanding many aspects of biology, including but not limited to, biodiversity, evolution, ecology and conservation. Many regions, especially in the tropics, lack recent exploration or samples that can be utilised for studies of molecular ecology due to the way that museum specimens are preserved (formalin fixed) and many species are only represented by historic museum specimens. Recently, modern genetic techniques have been used to sequence specific regions of the genome (ultraconserved elements (UCEs) and shotgun sequencing) for museum specimens, allowing for previously unanswered questions to be addressed.

New Guinea is one of the most poorly studied regions of the world, despite being home to the second largest rainforest and home to countless undescribed species. The current study trialled multiple different extraction methods, including extraction from proteinase K and guanidinium thiocyanate and amplified UCEs from formalin fixed snakes of varying preservation age from New Guinea.

Overall, the efficacy of different extraction methods will be discussed as well as the utility of UCEs for addressing different evolutionary questions i.e. intra- and interspecific variation and relationships among animals.







Dr Phil Nichols (ERAS Fellow) Course Leader, Film & Television Production Faculty of Arts p.nichols@wlv.ac.uk

Re-Writing by Fax: Ray Bradbury and Global TV Production

The imminent centenary of the birth of American author Ray Bradbury (1920-2012) and the 2018 HBO film adaptation of his novel Fahrenheit 451 are driving a renewed interest in that author's work. This presentation of research-in-progress examines a protracted earlier production for HBO, the TV anthology series The Ray Bradbury Theatre (HBO/USA Network/Atlantis Productions, 1985-92).

Remarkably, the thoroughly American milieu of Bradbury's tales of nostalgia, the future, and outer space were here re-cast to locations in urban Paris, the wilds of New Zealand, and British country cottages - albeit with limited success – as the series built international production partnerships around the world, while helping to carve out a new audience for the first wave of subscription cable television; a global network of production staff and the humble fax machine proving key to the series' longevity. More remarkably, the series' 65 episodes were all scripted by Bradbury, making for an unprecedented body of screenwriting from an established literary author.

This presentation examines the curious production conditions behind The Ray Bradbury Theatre, revealing the true extent of Bradbury's authorship of the teleplays, and the remarkable collaboration-at-a-distance between Bradbury and his line producers overseas in an era before email. The underlying research draws on a unique study of Bradbury's personal papers (held at the Center for Ray Bradbury Studies, Indiana University), and fills a gap in previous biographies and studies of Bradbury's body of work.





Dr Chris Foster (ERAS Fellow) Senior Lecturer in Music, Faculty of Arts <u>CMFoster@wlv.ac.uk</u> In collaboration with :

Jo Breslin, Senior Lecturer in Dance, De Montfort University

Sound.points Finding a Place to Be - Collaborative responsibilities in music and dance: the composer, choreographer and performer

One of the most powerful features of the performing arts is the inherent uncertainty of performance itself. It is difficult (if not impossible) for a musician or a dancer to execute a given act in exactly the same way twice, with the result that every performance of a piece of music or dance is slightly different in numerous subtle (and often unintended) ways. In light of this, it is argued, the creators of music and/or dance should acknowledge and accept such contingencies and make them intentional by exploring methods of creating pieces that allow for a range of possible outcomes in the performance. In practice, it implies an approach where performers are empowered to make their own decisions over the material presented to them by the composer and choreographer.

This, it is argued, opens up a level of hospitality whereby composers, choreographers and performers become co-creators in ever-closer collaborative ventures. It offers possibilities for a situation that is at once more open and diverse, where the process of creation itself is enlivened, where repeat performances of the same pieces are continually refreshed and audience-facing, and where a greater degree of equality is encouraged between all concerned in the making process.

This presentation outlines the compositional techniques that are being developed to embrace this approach. Using video footage and sound recordings, it will show how these have been tested both in rehearsal and performance. Working in collaboration with choreographer/dancer Jo Breslin of De Montfort University and with performers from the fields of contemporary music and contemporary dance, the applied element of this project centres on the exploration and implementation of such open techniques in the creation of a new piece: Sound.points Finding a Place to Be (see: https://chrisfostermusic.blog)





Dr Zeta Brown (ERAS Fellow) Reader in Education for Social Justice Faculty of Education, Health & Wellbeing Zeta.Brown@wlv.ac.uk

How is the Early Years Pupil Premium funding being used?

EYPP is a governmental initiative providing eligible 3-4 year olds with additional funds to support their education (Gov.UK, 2016). The funding is £302.10 per annum. Eligibility is based on the family's income and any income support or tax credits received. The exception to this rule is looked-after children who are automatically eligible for this funding. Looked-after children are children who have been in local authority (LA) care for 1 day or more, those who have left care under special guardianship or residential orders and those children adopted in England and Wales. The focus of EYPP is to support 'closing the gap' alongside established strategies for supporting children and their families.

This study is investigating practitioners' perspectives on the use of Early Years Pupil Premium (EYPP) for looked-after children in one local authority. The findings at present suggest that practitioners can be overwhelmed by the scope of how this funding can be used. This seems especially the case for looked after children who have met all of the developmental milestones. There are also administrative barriers, including funding being delayed in the academic year and questions regarding how its use will be evaluated. The second phase of data collection is also investigating how the funding has been used for individual looked-after children in one local authority. The findings will be presented at a relevant early years conference and written for publication. The local authority have requested a report by the end of this academic year that will support guidance offered to their early years settings.







Dr Ayman Antoun Reyad Senior Lecturer of Pharmacy Faculty of Science & Engineering <u>A.AntounReyad@wlv.ac.uk</u>

Clinical use of Lithium in the management of psychiatric patients with comorbid renal conditions

Lithium is an alkali element chemically similar to sodium that acts as a mood stabiliser for bipolar patients' treatment and reduces the risk of suicide. In patients suffering with renal problems, Lithium excretion is impaired leading to higher concentrations of Lithium which results in serious complications related to renal salt loss and deterioration of renal functions.

Reduction in the risk of these serious adverse events in psychiatric patients is of primary importance for us, as clinicians and pharmacists. Our collaborative work with Liaison Psychiatry and renal consultants in Birmingham & Solihull Mental Health Foundation Trust and Heartlands hospital focus on identifying patients who need to continue on their usual long term Lithium treatment while receiving renal dialysis. The clinical dilemma associated with this situation, the target Lithium level and the level of communication between the Psychiatric Liaison Team and renal team in terms of management of psychiatric patients. A discussion regarding the available guidelines /recommendations will be emphasized.







Dr Alan Apperley, Senior Lecturer in Media, Communications & Cultural Studies, <u>a.r.apperley@wlv.ac.uk</u> Dr Stephen Jacobs, Senior Lecturer in Media, Religion & Culture Faculty of Arts, <u>S.Jacobs@wlv.ac.uk</u>

Risk-Aversion or Ethical Responsibility? Towards a New Research Ethics Paradigm

Ethics seems to be of increasing concern for researchers in Higher Education Institutes and funding bodies demand ever more transparent and robust ethics procedures. While we agree that an ethical approach to fieldwork is critical, we take issue with the approach that ethics committees and reviews adopt in assessing the ethicality of proposed research projects. We identify that the approach to research ethics is informed by consequentialism – the consequences of actions, and Kantianism – the idea of duty.

These two ethical paradigms are amenable to the prevailing audit culture of HE. We argue that these ethical paradigms, while might be apposite for bio-medical research, are not appropriate for fieldwork in religion. However, because ethics should be a crucial consideration for all research, it is necessary to identify a different approach to ethical issues arising in ethnographic research.

We suggest that a virtue ethics approach – concerned with character – is much more consistent with the situated, relational and ongoing nature of ethnographic research.







Matt Bellingham Senior Lecturer in Music Technology Faculty of Arts Matt.Bellingham@wlv.ac.uk

Choosers: The design and evaluation of a visual algorithmic music composition language for non-programmers

Algorithmic music composition is a method for specifying music which is non-deterministic on playback, leading to music which has the potential to be different each time it is played. Current systems for algorithmic music composition require the user to have considerable background knowledge of programming and/or music theory. However, much of the potential user population are self-taught music producers without the required background in either programming or music.

To investigate how this gap between tools and potential users might be better bridged we designed Choosers, a prototype algorithmic programming system centred around a new abstraction (of the same name) designed to allow non-programmers access to algorithmic music composition methods. Choosers provides a graphical notation that allows structural elements of key importance in algorithmic composition (such as sequencing, choice, multi-choice, weighting, looping and nesting) to be visualised and manipulated while keeping the complexity of interaction low.

In order to test design assumptions a Wizard of Oz study was conducted in which seven pairs of undergraduate music technology students used Choosers to carry out a range of rudimentary algorithmic composition tasks. Feedback was gathered using the Programming Walkthrough method. All users were familiar with Digital Audio Workstations, and as a result they came with some relevant understanding, but also with some expectations that were not appropriate for algorithmic music work. Users were able to successfully make use of the mechanisms for choice, multi-choice, looping, and weighting after a brief training period. The 'stop' behaviour was not as easily understood and required additional input before users fully grasped it. Some users wanted an easier way to override algorithmic choices. These findings have been used to further refine the design of Choosers.





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Impacts of depression cases and subcases on all-cause mortality in late life

Depression is the most common psychiatric condition in older people. Case level depression needs medical intervention, but subcase may not receive treatment because of their low clinical severity. There are few studies of sub- cases and their impact on mortality. The differences between the impact of subcase and case level depression on all-cause mortality are unknown.

The objective of this study was to examine all-cause mortality in relation to depression in older communities which have high levels of socioeconomic deprivation and social support.

We examined a random sample of 3,336 participants aged \geq 60 years in Anhui Province, China, who had completed a health survey in 2001-2003. Their baseline risk factors were recoded and the cases and subcases of depression were diagnosed using a standard method (GMS-AGECAT). 2,978 participants were followed up over 10 years. There was a significant excess of mortality among both participants with case level depression (34.4% in 44/128) and with subcases (32.7% in 34/104) compared to those without depression at baseline (21.6% in 593/2746).

After adjustment for age, sex, smoking status, alcohol drinking, body mass index, urban-rural areas, education level, marital status, living with people, hypertensive status, diabetes, heart disease and stroke, hazard ratio for mortality increased in those with case level depression was 1.38 (95%CI: 1.00-1.90) and in subcase 1.45 (1.02-2.05).

It is concluded that subcase level depression in older people significantly reduced survival to the same extent as case level depression. In the older community subcases of depression should be identified for care in the hope of reducing mortality.





Dr Chiara Paola Donegani (ERAS Fellow) Senior Lecturer in Economics Faculty of Social Sciences C.Donegani@wlv.ac.uk

Migrant earnings assimilation and family connections. Does marrying natives improve labour market outcomes?

The number of migrants in the UK has doubled over the past few decades and past research has found that migrants face a large wage disadvantage compared to the native-born population. Most previous studies have focused on the individual, without considering their relationship context.

We use data from Understanding Society (the UK Household Longitudinal Survey) to assess whether the well-established disadvantaged status of migrants (in particular, in hourly earnings compared to the native-born population) is offset by relationships and family bonds made by migrants with native born people.

In fact, migrants from the older EU15 countries tend to have formed relationships with UK-born people, whilst those from newer cohorts (A8), where in relationships, tend to be with people from their home countries. This is relevant as the wage disadvantage is increased where people's partners are also born abroad, and somewhat attenuated if they have a UK partner. The effects of having a non-UK partner tend to be a little larger for men than for women, and men's wages are also lower to a greater degree when they are single.

The impact of the findings revolves around migrants' labour market integration approaches and policies on their earnings assimilation.





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Modelling the Response Time to Multiple-Choice Questions in High-stakes Medical Exams

Predicting the response time needed to answer multiple-choice questions (MCQs) is important for the development of standardized high-stakes exams. While a lot of attention has been paid to this issue within the area of Psychometrics, the problem is virtually unexplored from a Neuro-linguistic programming (NLP) perspective.

We used 806 test items from the high stakes United States Medical Licensing Examination and their mean response times from an average of 448 examinees. We compared the performance of three types of models based on word embeddings, linguistic features and a combination of the two, and show that combining word embeddings with linguistic features results in best performance.

Contrary to expectation, vectors built using generic texts lead to better performance compared to vectors built using specialized medical texts and using word vectors for the item only is more predictive than including the answer options. We also provide recommendations to item writers by identifying linguistic features contributing to longer response times. To the best of our knowledge, this is the first study to model the response times for MCQs.







Dr Richard Glover Reader in Music Faculty of Arts Richard.Glover@wlv.ac.uk

Game design and participation in the performance of minimalist music

This presentation will explore recent developments in music composition which address the role of motivation and participation within experimental music performance, in order to engage wider audiences and develop inclusive strategies through a more socially-responsible approach to musical creativity.

The integration of game design mechanics into compositional structures, and the various affordances of both analogue and digital gaming approaches within a performance context will be discussed. The presentation will also consider theoretical approaches from recent gamification research which have been incorporated into the compositional design, in order to support the development of intrinsic motivation throughout the course of a piece.

The music employs open, indeterminate approaches for various performance aspects, such as the choice of instrument or sound source, the sounding material, and stylistic approach; I will describe how this reinforces the potential for the wide applicability of this creative research, both across the world of performance and into other social domains. The presentation will also detail further how different performance capabilities are accounted for within the compositional design (i.e. differentiation), in order to encourage beginners, amateurs and professionals alike to engage in the realisation of the same piece and thus perform alongside one another.

The emergence of these new approaches to participatory performance will be traced from the author's previous compositional work in minimalism and gradual process; this body of work will be contextualised with critical evaluation of other compositional lineages involving games and cooperative interaction.





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Disputed Authorship Techniques for Some Conclusions to "Edwin Drood"

When the great English novelist, Charles Dickens, passed away in 1870, he left unfinished his work "The Mystery of Edwin Drood". He left no clear plan of how the novel should be finished, but did tell both his son (also called Charles Dickens) and his illustrator, Luke Fildes, that the murderer of Edwin Drood was John Jasper, the choirmaster of Cloisterham Cathedral.

Several writers have written conclusions to Edwin Drood, the most recent of which was superbly written by Leon Garfield. We also look at two more controversial conclusions. "John Jasper's Secret" was an ending written by Henry Morford, who also wrote a number of stories set in the army. This work was widely rumoured to have been co-written with Wilkie Collins and Charles Dickens Junior, and some modern editions still bear the names of these authors, such as the Scholars Select version which is attributed to Wilkie Collins, Charles Dickens and Henry Morford.

We used Principal Components Analysis, a computer technique often used for differentiating between writing styles, to show that "John Jasper's Secret" was much more similar in style to "Shoulder Straps" by Henry Morford, than it was to samples of Wilkie Collins' "The Woman in White" and "The Moonstone", or "Reminiscences of My Father" by Charles Dickens the younger.

The second ending to "Edwin Drood" was claimed to have been dictated from the afterlife, through a medium, and recorded by one Thomas Power James. However, Principal Components Analysis showed that the writing styles of the original and the conclusion were clearly distinct. To compare the ending by Leon Garfield with the original, we used two techniques not used before in studies of disputed authorship: one class clustering, and using word embeddings as inputs to the Principal Components Analysis.







Karl Royle

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Solution based learning with Agile methods

This workshop shows how borrowing from the world of agile software development, can build learner capabilities and provide a structured framework for the democratisation of learning in formal education. Increasingly, problem and project based learning, design led, and product-oriented learning have been put forward as solutions for creating learners that are creative, collaborative and self directed.

The Agile Pedagogy (AP) concept, bridges the gap between (traditional) teacher and learner centred project based approaches by providing a project development framework that supports existing cultural relationships within the classroom but opens a space for new ways of working and development that is learner centred and teacher facilitated. This means that learner capabilities can be developed more freely. It also leverages the digital habits of learners by using networked public digital tools such as Kanban systems via www.trello.com, participatory approaches to knowledge generation such as Open Space Technology http://www.openspaceworld.org/cgi/wiki.cgi?AboutOpenSpace and leancoffee http://leancoffee.org/ This has been successfully used in Nursing courses, the MA education and in schools in Wolverhampton. Karl has also been invited to present this methodology at various conferences in the Middle East, Western Balkans and UNESCO Barcelona.

The aim of this practical session is to share an implementation of agile learning with participants so that they might recognise the benefits and use it in their own practice. Participants will take away practical skills in Agile Learning and Teaching that can be applied immediately. They will also be invited to participate in our impact evaluation study.

At the end of the session participants will

- Have working knowledge of Agile Learning methods via hands on experience & how they can be used to develop knowledge workers.
- Learn how digital tools can ignite student centred learning.
- Take part in teams to complete the ball point game. This Scrum based game shows how team work and empirical process control can be used for collaborative working and self-organisation.
- Write user stories for the features of a project using an everyday example.







Dr Benjamin Halligan Director of the Doctoral College Research Policy Unit B.Halligan@wlv.ac.uk

Crises of Responsibility: Daniel Berrigan SJ in 1970

This presentation concerns the positions of the Jesuit priest and poet, Daniel Berrigan SJ (1921-2016), in respect to what was deemed to be "responsible" action at a time of a rapacious North American foreign policy which was formally supported by the hierarchy of the Roman Catholic church. Berrigan was tried and sentenced further to draft card burning, but refused to surrender to imprisonment. During this time he wrote the experimental play The Trial of the Catonsville 9 about the trial of himself and his fellow anti-war activists, and contributed to early productions.

I argue that Berrigan aspired to a vastly different theatre to the type that typified this moment – he was especially critical of the psychedelic happenings of The Living Theatre – in order to spread the anti-war message, channelling the crisis-inducing voices of those unable to speak. And this was in the context of profound theological upheavals sweeping through the Catholic church, which would in part culminate in the development of Liberation Theology. Berrigan was writing about his conception of theatre while on the run from the FBI, during which time he also offered himself as chaplain to the Weather Underground.

In Berrigan's work a full problematisation of the idea of responsibility seems to occur: responsibility is intrinsic to the human condition, Berrigan seems to argue – but responsibility to whom, and to what ends, and what action arises from responsibility?

This presentation will draw on my recently published article in TDR (The Drama Review, MIT Press; 62:1, Summer 2018), "This is Father Berrigan Speaking from the Underground': Daniel Berrigan SJ and the Conception of a Radical Theatre", and a forthcoming article on Berrigan and the Plowshares Movement.







Lucy Kelsall-Knight

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Employing a narrative inquiry approach to ascertain the views of lesbian parents in accessing and receiving healthcare for their adopted children

Family demographics have changed significantly in recent history as it is now more common and less hidden for parents to be lesbian, gay, bisexual or transgender (LGBT) due to an increase in social acceptance and the dissolution of legal barriers with regards to parental responsibility. Within the United Kingdom the implementation of the Adoption of Children Act (2002) allowed children to be adopted by same-sex couples from 2005.

Notwithstanding policy, government recommendations and law (Stonewall, 2008. Equality Act, 2010) homophobia and a rhetoric of normative heterosexism remains present in many UK institutions, including the National Health Service (NHS). This is unlawful as public services must have due regard to the need to eliminate discrimination (Equality Act, 2010).

Available research detailing the experiences of LGBT people in the healthcare arena is extensive, however there is minimal research concerning LGBT parents' experiences of accessing healthcare services for their children. No research has been undertaken on this topic in a British context.

This short talk which is based upon my current doctoral study aims to inform the audience about the employment of narrative inquiry as a tool to illicit the views of lesbian parents as they describe their experiences of healthcare consultations for their adopted children in the United Kingdom.







Professor Andy Lane

Director of Research Excellence Faculty of Education, Health & Wellbeing <u>A.M.Lane2@wlv.ac.uk</u>

Demonstrating impact and the responsibility of the researcher

Researchers are encouraged to show impact, that is, demonstrate the work has value beyond academia, possibly to the economy, society, culture, public policy, health, the environment, or quality of life. Impact helps demonstrate that research is important, worth doing, publishing, and investing in. As such, researchers have a responsibility to ensure robust methods are used and claims of effectiveness are evidenced. Further, researchers should use appropriate language that does not over-emphasise findings.

We have conducted a number of high-profile studies. This presentation focuses on one study conducted in conjunction with BBC Lab UK. A project that was run in Olympic year, participants signed up to receive a beneficial sport psychology intervention and tested the effectiveness of 12 different interventions versus control. The study received wide scale marketing including a promotional film, leading to over 125,000 people engaging with the <u>engaging via the BBC page</u>.

In this presentation, I will go through how we addressed some of the challenging issues including; a) that the work showcased sport psychology to the general public, and so it was important for the subject to be seen as credible and worthwhile; b) managing large expectations to publish in a good scientific outlet, and so how control group was developed; c) ensure participants found the research experience to be useful and educational.

The substantive study (see Lane, Totterdell et al., 2016) was published in an open-access, a decision to ensure participants and general public could easily access the work. With over 25,000 views and findings on a <u>BBC iwonder</u> website, the work has wide scale accessibility. I will discuss the lessons learned from this process and how it informs our current work.







Dr Gavin Wilson Lecturer in Film and Television Production Faculty of Arts g.wilson2@wlv.ac.uk

Lies, Damned Lies and the Colourful Artifice of Cinematic Subjectification

Whether and how we perceive colour has been a perennially thorny question, from classical times (and perhaps even earlier) through Wittgenstein's philosophical questioning of the descriptive fumblings after a theory by Goethe, to science's searching after objective measurement of its various affects. If colour can help tell particular kinds of stories in films, it can also mislead, obfuscate, and even lie. Colour as a phenomenon in the cinema cannot be trusted. This paper questions whether we are willing conspirators in a charade of (mis)representation, or unwitting spectators of lies and subjectified untruths.

Drawing on examples of cinematography's persuasive, seductive ocular candy, exemplified by a selection of fiction films that otherwise predicate levels of objective truth through their representations, I will attempt to delineate the shady hues where forms of intentionality in cinematic representations of sensation, saturate and eliminate what is otherwise communicated as contingent veracity, subjectiveness, turbidity, and accidental truth.

Against this background, I believe the paper will have relevance for many academics and conference participants who have an interest in subjects around truth in the moving image media we consume, and in the research we undertake in related fields.





Dr David Cox, Reader in Criminal Justice History & Mr Joseph Hale, Graduate Teaching Assistant Faculty of Social Sciences D.Cox@wlv.ac.uk & j.hale3@wlv.ac.uk

"It's the man that can gammon the chaplain best – he gets the ticket of leave." Public perceptions of early release licensing systems in England 1853-2018

On 28 June 1854 The Times reported that two convicts who had been released early from their respective sentences of penal servitude had been recommitted to Dartmoor Convict Prison as a result of their breaching the terms of their 'ticket-of-leave' – a licence to be at large. The newspaper reported that this was the first recorded reconviction of 'ticket-of-leave' convicts following the recent introduction of the system in the preceding year by Lieutenant Colonel Joshua Jebb, Chairman of the Directors of Convict Prisons.

This small news item, only a few column inches long, was quickly followed by a flurry of correspondence from members of the public, concerned by the presence of serious offenders on the streets of Britain. Over the intervening one-and-a-half centuries, such debate over the rights and wrongs of early-release mechanisms has never really gone away.

On the 50th anniversary of the Parole Board (which has been recently itself in the news over its decision to release the 'Black Cab Rapist', John Worboys) this presentation investigates historical and contemporary public perceptions to the system of parole in England and Wales, first introduced as a result of the Penal Servitude Act 1853.







Dr Wan Li Low (ERAS Fellow) Lecturer in Pharmacy Science Faculty of Science and Engineering W.L.Low2@wlv.ac.uk

Development of biomaterial for the controlled delivery of naturally occurring antimicrobial agents

The lack of physical activity amongst individuals in the modern society has led to the expansion of an "unhealthy" population with greater incidence of chronic, life-long diseases such as diabetes, obesity and hypertension. These underlying conditions are known to influence the complexity and severity of wound healing. In addition, the increasing occurrence of antibiotic resistant microorganisms poses further complications, thereby escalating the costs associated with wound management. Hence, alternative non-antibiotic, antimicrobial agents and development of wound treatment "devices" are vital to address the current unmet needs in wound management.

Hydrogels are three-dimensionally structured biomaterials with the ability to imbibe large amounts of water or biological fluids. Formulations of hydrogels consist of polymers which are known to be biocompatible and biodegradable. The porous structure of hydrogels allows the incorporation of useful antimicrobial agents and can serve as a scaffold to support tissue regeneration during wound healing.

Heavy metal ions (e.g. silver, copper, gold) and essential oils (e.g. Tea tree oil, verbena, ylang ylang) have been widely used as non-antibiotic, naturally occurring antimicrobial agents. Both silver ions (Ag+) and tea tree oil (TTO) have broad spectrum antimicrobial activity, anti-inflammatory and exhibit low toxicity to human cells.

Recent research has demonstrated the enhanced antimicrobial activity when both TTO and Ag+ are used in combination against representative wound infecting microorganisms. Developments to incorporate the use of combined antimicrobial agents in bio-friendly, intelligent, controlled release systems, such as hydrogels, can potentially create a wound dressing which has abilities to effectively deliver the antimicrobial agents at the wound site, create a conducive environment which enhances the healing process and reduce the need for frequent dressing changes. The outcome from this research may help to contribute towards the knowledge base used to inform effective clinical wound management strategies that address the current unmet needs.







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Quantum technology: the technology of tomorrow

This is an exciting time for Physics, with prospects to finally control, manipulate and process light and matter at their ultimate quantum level. This would allow to replace our current paradigm for devices, based on opto-electronics, by quantum circuits. These extremely powerful devices are much more efficient, not only in terms of computational power, but also in energy consumption and dissipation, addressing one of the important societal problem: how to lower the ecological footprint of our increasing technological needs.

I will introduce the basic idea of quantum computation through the example of "boson sampling", that consists in propagating photons in a Galton board of beam-splitters (a beam-splitter redirects a photon on one side or the other, or through both sides simultaneously in a process known as "quantum superposition"). I will explain how such a device would allow us to do with a physical system ruled by the laws of quantum mechanics, something that no classical computer can compute or simulate.

I will generalise this concept to show how quantum computers promise to achieve calculations not possible with our current technologies, in such important endeavours as factorising large integers (important for cryptography), solving linear equations, sorting a database or optimising a combinatorics problem.

Finally, I will explain what are the demands made by this technology of the future to become a reality and survey some of our efforts and contributions at the University of Wolverhampton to meet these challenges and bring us into the quantum age.







Dr Dean Petters Senior Lecturer in Psychology Faculty of Education, Health & Wellbeing <u>D.Petters@wlv.ac.uk</u>

Assessment of the scripts involved in educational interactions like mentoring and research supervision

The aim of this research is to design assessment and intervention tools that can improve outcomes in educational interactions like mentoring and research supervision.

This research examines the influence of mental scripts on performance. In particular the secure-base script, in educational mentoring and research supervision relationships. This research assesses to what extent individuals in mentor-protégé, and research supervisors-student dyads possess the secure-base script. This then gives information about what patterns exist in a person's expectations about interactions with others in relationships of this kind. So this research is using theoretical perspectives of Attachment Theory in applied contexts removed from the usual close family and romantic relationship context of attachment research. Among other benefits, this means that outcomes should be generalised across contexts and implemented in real-world scenarios. Two theoretical approaches inform this investigation of close professional relationships in an educational setting: influence of past relationship patterns on current patterns (attachment theory) and mental constructs about relationship context (i.e. attachment security scripts).

The Attachment Script Assessment (ASA) has been adapted for UK-based participants and data collection has been expanded to enable examination of effects across gender and ethnicity. The ASA is also being adapted for use in research supervision student-supervisor dyads.

Preliminary research results show positive correlations between the presence of secure base scripts and positive expectations of, and attitudes towards mentoring.

This is novel research that uses assessment tools from contemporary relationship science to assess interactions in educational contexts. This research will inform an intervention that trains mentors and protégés to realign their interaction towards patterns found to be correlated with positive outcomes.





Dr Fabrice Laussy & Juan Camilo Lopez Carreno Principal Lecturer in Physics Faculty of Science & Engineering F.Laussy@wlv.ac.uk

Coloured Photons

A principle of quantum mechanics is the impossibility of knowing with infinite precision the value of pairs of conjugate variables, such as time and energy.

In the case of the light emitted by sources of single photons, this principle comes into play when the suppression of multi-photon emission (which translates into a perfect knowledge of the time of emission of the photons) comes at the price of a complete uncertainty of the frequency of the emitted photons. Such an uncertainty can be reduced (e.g., by making the light pass through a colour filter before its detection), but as a consequence the multi-photon emission is no longer suppressed.

In this talk, we will show how the distribution of photons in time and frequency can be customized, simply by compromising the knowledge of their frequency and of the time at which they were emitted. This on-demand control over the photon distribution of versatile sources of photons, which can readily be used at a fundamental level for state-of-the-art research but also for the development technological applications.



Group 2





Dr Constantin Orasan

reader in computational linguistics Research Institute in Information and Language Processing <u>C.Orasan@wlv.ac.uk</u>

Are computers useful for professional translators?

Translation technology involves software components that assist project managers, translators, reviewers and developers to produce translated content more easily than doing it manually. Some of these components assist project managers to manage the overall project by keeping track of how the project is progressing.

Components such as terminology databases and translation memories give translators access to resources that can help them in the translation process. As a result of the recent developments in Natural Language Processing (NLP), an increasing number of components from the translation workflow are used to produce translated content automatically. However, in many cases this content is not of a sufficient standard to be used as it is and needs to be manually corrected by translators.

This presentation will describe recent research carried out by the Research Group in Computational Linguistics on post-editing for professional translators. Post-editing requires professional translators to correct machine translation output in an attempt to increase their productivity. By using data collected from professional translators we show how it is possible to increase their productivity if we can correctly estimate the quality of an automatic translation.

The presentation will also discuss future research directions.







Dr Goggolidou Paraskevi Senior Lecturer in Clinical Genetics Faculty of Science and Engineering p.goggolidou@wlv.ac.uk

The role of Planar Cell Polarity signalling in Autosomal Recessive Polycystic Kidney Disease (ARPKD)

Autosomal Recessive Polycystic Kidney Disease (ARPKD) is a clinically important paediatric genetic disorder caused by mutations in the PKHD1 gene, affecting ~1 in 20,000 patients. There is a wide range of severity, from death in the womb or soon after birth, through a need for dialysis and transplantation in babies and children to modest kidney problems in middle age.

This presentation describes the involvement of a novel modifier gene, ATMIN in ARPKD using patient samples, mice and cell lines. The data show that ATMIN affects PKHD1 expression, provoking a significant increase in Wnt signalling and regulating cellular proliferation. Better understanding of such interactions will shed light on the molecular mechanisms of ARPKD and could help develop treatments that reduce disease severity.







Professor Baldev Singh, Medical Director, AIM, BaldevmSingh@wlv.ac.uk & Dr Simon Dunmore, Senior Lecturer in Clinical Biochemistry, s.dunmore@wlv.ac.uk

The glycation gap: a potential source of clinical error and its possible biochemical explanation

The glycation gap (GGap) is a consistent discrepancy between glycated haemoglobin (HbA1c), widely used in the diagnosis and monitoring of diabetes, and prevailing blood glucose concentrations (estimated HbA1c based on fructosamine (fHbA1c)). The Wolverhampton Diabetes Research group has demonstrated a methodology for calculating the GGap, demonstrated its consistency in individual patients and shown it to be associated with risk of diabetic complications. We have recently published evidence that the magnitude of the GGap may be a result of individual variation in the erythrocyte activity of the deglycating enzyme fructosamine-3-kinase (FN3K). We showed that there is a 3-fold difference in FN3K activity in patients groups dichotomised for a highly positive GGap (higher than expected HbA1c compared with fHbA1c, exhibiting a higher incidence of complications) and negative GGap (HbA1c<fHbA1c). We hypothesised that this difference might be explained by differences in genotype of known FN3K single-nucleotide polymorphisms (SNPs).

We evaluated FN3K SNPs rs1056534, rs1046896, rs3848403 and rs11568350 using real-time PCR of genomic DNA extracted from whole blood of patients with diabetes dichotomised for GGap status (n= 130, 73 negative, 57 positive GGap, matched demographics).

The FN3K SNPs rs1056534, rs1046896 and rs11568350 did not differ between the -ve GGap and +ve GGap groups. The SNP rs3848403 had 3 allele combinations C/T (85%), T/T (12%) and C/C (3%), the distribution of which was significantly between GGap groups (X2=6.901, p=0.032). These were reallocated into heterozygous (C/T) and homozygous (T/T or C/C) and this distribution again differed significantly between groups (X2=5.458, 6.901, p=0.019). In binary logistic regression (X2=54.469, p<0.001) GGap status was associated with BMI (p<0.001) and the dichotomised allelic status of C/T vs T/T or C/C (p=0.044) but not age, type of diabetes or the rs3848403 SNP triple status independently of the dichotomised status. The Odds Ratio (95% CI) of -ve GGap being associated with allelic heterogeneity or +ve GGap with homogeneity was 3.7 (1.0 to 13.1).

We have shown for the first time that a FN3K SNP, rs3848403, is associated with glycation gap status, a SNP previously associated with variations in HbA1c only. There is a 35-40% misalignment with GGap status in groups that are really divergent for this characteristic. We did not find that the FN3K activity /concentration appeared to be dictated by the SNP although there is a very strong link between GGap and FN3K. We are currently undertaking transcriptomic studies of these dichotomised GGap samples in order to further understand possible contributors to FN3K activity variation such as splice variation.







Dr Hafid Omar Al-Hassi, Senior Lecturer in Cancer Research, RIHS, Faculty of Science & Engineering & Professor Matthew Brookes is a Consultant Gastroenterologist, Royal Wolverhampton NHS Trust.

Helicobacter pylori infection modulates iron absorption in patients with iron deficiency anaemia.

Helicobacter pylori (HP) infection is associated with iron deficiency anaemia (IDA). The balance between iron uptake, storage and reutilisation is maintained by the liver hormone hepcidin. Paediatric studies have shown that HP disrupts iron function by inducing hepcidin. However, effects of HP infection on iron metabolism in adults with IDA remain controversial. Hence, we aimed to investigate HP effects on hepcidin expression and iron absorption in duodenal and gastric tissues from IDA patients.

Duodenal and gastric biopsies were obtained from patients with HP-IDA, IDA or controls (n= 14/group). Expression of hepcidin and iron regulators, including the divalent metal transporter1 (DMT1), ferritin (iron storage) and transferrin (iron import - TFR-1) were determined by RT-PCR. The iron transport protein ferroportin was determined by Immunohistochemistry.

In the duodenal and gastric tissues, DMT-1 and ferritin expression was significantly higher in HP-IDA than in IDA (p<0.01) or in the control (p<0.001) group. In the duodenal tissues, ferritin expression was significantly higher and TFR-1 was significantly lower in IDA than in the control (p<0.001) group. Ferroportin was localised to the cytoplasm in duodenal tissues from HP-IDA (70%) compared with IDA (40%) but mainly localised to the membrane in control tissues. There were no significant differences between the groups in hepcidin expression.

Helicobacter pylori infection increases internalisation and storage of iron independently of hepcidin in IDA patients. Inflammatory mediators associated with HP infection may play a role in disrupting iron function. Therefore, further studies are ongoing to investigate the mechanisms by which HP modulates iron metabolism.







Dr Mohammed Sami Al Abadie, PhD FRCP Consultant Dermatologist /Clinical Director at the Royal Wolverhampton NHS Trust

Excimer Laser & Needling Technique: New Effective Treatment of Moderate to Severe Vitiligo

Vitiligo is an idiopathic acquired disorder characterised by well circumscribed milky white cutaneous macular patches. It can affect up to 2% of a population. There are many theories which may explain the pathogenesis. Treatment of vitiligo include topical, ultraviolet light, surgical and laser, none of which seem to have significant impact in severe or advanced cases of the disorder. The objective of this study is to evaluate the synergistic effect of combining the Excimer laser and the Needling technique in moderate to severe vitiligo patients.

Twenty patients with stable vitiligo (14 male & 6 female)(age 18-50 years) were enrolled. Patients were divided randomly and equally between the 2 groups of 10 patients. One group received only Excimer laser therapy and the second group received the combination of Excimer laser and needling. After 16 weeks of treatment the average score of the group with the combined therapy of Excimer laser and needling was significantly higher than the Excimer laser only treated group (2 way ANOVA: Row Factor':0.0003).

The combination of Excimer Laser and Needling technique will give an extra dimension and better response to patients with moderate to severe vitiligo.







Dr Vinodh Kannappan, Postdoctoral Research Fellow Research Institute in Healthcare Science, Faculty of Science & Engineering V.Kannappans@wlv.ac.uk

Repurposing existing drugs for cancer treatment: New hope for cancer patients and opportunities for pharmaceutical companies

Cancer is a prominent cause of death in Europe and Worldwide after cardiovascular diseases. In 2012, there was an estimated 14.1 million new cases and 8.2 million deaths in the World due to cancer. These figures, far from diminishing, are expected to increase by around about 5% every year. Due to the cost (\$1.5 billion), time (15 years) and high failure rate (up to 95%) of novel drug development from new compounds, there is a global trend towards the repositioning of known drugs for the treatment of cancer.

We have demonstrated that Disulfiram (DS), a long-established anti-alcoholism drug, possesses excellent anticancer activity with low toxicity to normal cells. Supported by Brain Tumour Charity, Breast Cancer Now, British Lung Foundation, Pancreatic Cancer UK, EU-Commission, and Innovate UK, we have shown that DS is effective against a wide range of cancers.

Although DS shows strong anticancer activity in the laboratory, its application in cancer clinic is inhibited by its bio-instability. DS has a very short half-life in the blood stream (~4 min) as it is instantly converted into diethyldithiocarbamate (DDC) which metabolizes very quickly to its metabolites, losing its anti-cancer profile. Therefore, up-to now the clinical translation of DS as an anti-cancer drug has not been possible.

We have demonstrated that we can substantially improve the half-life of DS in the bloodstream by encapsulating DS using nanotechnology. Furthermore, we have conducted both in vitro and in vivo trials in a wide range of cancer types that have produced encouraging results. In order to translate our laboratory results into cancer clinic, we recently set up a collaborative spin out company, Disulfican Ltd., that has attracted big funding into University of Wolverhampton. We set up a global collaboration with prominent scientists in Australia, USA, UK, Europe, India and China. The goal of this company is to develop nano-encapsulated DS at GMP quality and use laboratory facilities in the UK (the University of Wolverhampton and elsewhere) to verify the anticancer efficacy of the GMP qualified nano-DS in animal cancer models and provide preclinical data prior to scaling up manufacturing and embarking upon phase I clinical trials.







Nazish Khan Principal Pharmacist Cardiac Services The Royal Wolverhampton NHS Trust

Ticagrelor: An Analysis and Comparison of Drug Handling in Patients Who Present Following a Major or Minor Heart Attack

Coronary heart disease occurs when the main arteries that deliver oxygen rich blood to heart muscle become narrowed due the build of cholesterol plaques. If these plaques become too large, there is a danger that they will become unstable and rupture. The blood clot that forms can result in either a complete or partial blockage of the affected artery causing a heart attack (myocardial infarction). A complete blockage is called a major heart attack or ST-elevation myocardial infarction (STEMI) and a partial blockage is called a minor heart attack or non-ST elevation myocardial infarction (NSTEMI). Heart attacks are usually managed with medications called anti-platelets (aspirin and ticagrelor) and restoration of blood flow with a procedure called percutaneous coronary intervention (PCI).

Although, ticagrelor is a potent antiplatelet drug administered to patients following a heart attack, current evidence indicates a reduced antiplatelet effect in STEMI. We sought to understand drug handling of ticagrelor during major vs minor heart attacks (STEMI vs NSTEMI).

STEMI/NSTEMI patients were recruited. All patients gave informed consent and were administered aspirin 300mg and ticagrelor 180mg prior to PCI. Blood was sampled at 20 minutes, coronary balloon time, 1 and 4 hours after loading. The degree of antiplatelet effect (pharmacodynamics) and the amount of drug within the body (pharmacokinetics) were determined.

Pharmacodynamic analysis: In STEMI patients' a delayed and reduced antiplatelet effect is seen at all time points. In NSTEMI patients, a significant and rapid antiplatelet effect is seen at all time points.

Pharmacokinetic analysis: Low plasma concentrations of ticagrelor and its active metabolite are observed in STEMI vs NSTEMI patients and this trend continues until 4 hours.

It is concluded that Ticagrelor, in STEMI patients does not provide an adequate antiplatelet effect in the first four hours following administration. In contrast platelet inhibition is significantly more rapid in patients with NSTEMI.







Nazish Khan Principal Pharmacist Cardiac Services The Royal Wolverhampton NHS Trust

Potent Antiplatelet Agents and their Effect on Outcomes in Patients Who Present Following a Major Heart Attack

In patients who present following a major heart attack (also known as ST-elevation myocardial infarction or STEMI), initial treatment involves the administration of oral antiplatelet agents; aspirin and a P2Y12 inhibitor (e.g. clopidogrel, prasugrel or ticagrelor). The effectiveness of P2Y12 inhibitors in such patients is largely unknown. We aimed to determine the impact of the P2Y12 inhibitors on outcomes such as survival and bleeding complications.

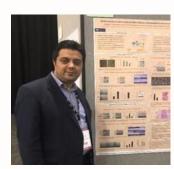
A retrospective observational analysis of 2,220 heart attack patients treated at our cardiac centre between 2011 and 2105 was undertaken. All data were collected and verified by review of clinical records. Survival data were obtained via the Office of National Statistics (ONS). Statistical analysis was two-fold: multi-logistic regression and propensity score (PS) based analysis.

The study population n=2,220 (24% female) were treated with either clopidogrel (n=570), prasugrel (n=1058) or ticagrelor (n=592). Results demonstrate that ticagrelor treated patients had improved in-hospital, 30-day and 1 year survival when compared with prasugrel. Ticagrelor was not superior to clopidogrel for in-hospital and 30-day survival, however, it was associated with improved survival at 1 year. No survival differences were seen between clopidogrel and prasugrel. There are no reported differences in bleeding complications when comparing the three agents.

We provide a clinical analysis of three oral P2Y12 inhibitors in STEMI patients. There are advantages associated with the use of ticagrelor when compared to prasugrel, in terms of survival at all time points, and when compared to clopidogrel at 1 year.







Karim Azar, Research Student Postgraduate Research in Biological Sciences Faculty of Science & Engineering <u>K.Azar@wlv.ac.uk</u>

Disulfiram targets hypoxia induced stem like cells in Glioblastoma

Glioblastoma multiforme (GBM) is the most common, primary malignant brain tumour in adults. GBM exhibits aggressive characters of proliferation and invasion resulting in poor prognosis. Hypoxia is a major driver for GBM malignancy. Although it has been widely accepted that hypoxia induces GBM stem-like-cells (GSCs), which are highly invasive and resistant to all chemotherapeutic agents, the detail molecular pathways linking hypoxia, GSC traits and chemoresistance remain obscure.

Hypoxia triggers expression of NF-κB which plays pivotal roles in cancer stemness and chemoresistance. Understanding the mechanisms behind hypoxia-induced GSCs would be invaluable for development of GSC-targeting drugs and will improve the therapeutic outcomes of GBM. Disulfiram (DS) is an anti-alcoholism drug. In combination with copper (Cu), DS is highly toxic to a wide range of cancer cells and reverses chemoresistance. The clinical application of DS is limited by its short half-life in the bloodstream. We recently developed a poly lactic-co-glycolic acid (PLGA)-encapsulated DS nanoparticles, which protect DS from degradation and thereby extend its half-life in the bloodstream. In this study, we investigated the effect of DS on GBM cell lines in vitro and in vivo.

Hypoxia-cultured GBM cells expressed high NFkB and GSC markers with the characters of increased invasiveness and resistance to temozolomide (TMZ). Transfection of NFkB also induced GSC features and TMZ resistance indicating that NFkB plays a key role in hypoxia induced resistance. DS/Cu reversed resistance and invasion of hypoxic GBM cells at low nanomolar levels. In combination with copper, DS-PLGA significantly inhibited GBM tumour in orthotopic xenograft mouse (<1/10 of antialcoholism dose). DS and PLGA are FDA approved products and can pass through the BBB. Our study may lead to improvements in GBM treatment.







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Comparison of the anti-cancer activity of disulfiram and first line anticancer drugs in primary pancreatic ductal adenocarcinoma (PDAC) cells

Pancreatic cancer has the worst prognosis of all cancers because most patients are diagnosed at the late stage of the cancer. The treatment outcomes for pancreatic cancer have not changed for the past 40 years.

In recent years, scientists have proven that a small population of cells within the tumour known as cancer stem cells are responsible for cancer relapse and drug resistance. The process of producing a new drug is expensive and time consuming so researchers have come up with a new strategy known as drug repositioning which cuts down cost and time.

Our group has worked on disulfiram and showed that it kills PDAC cells in the presence of copper. Our research shows that low oxygen levels in the tumour is the key element that drives the cancer stem cell population and chemoresistance. In this study, gemcitabine and paclitaxel which are first-line anticancer drugs were tested on PDAC cells. Disulfiram, inhibits cancer stem cell population in the presence of copper and can reverse the resistance to these drugs.







Dr Chris Fullwood

Reader in Cyberpsychology Faculty of Education, Health & Wellbeing <u>C.Fullwood@wlv.ac.uk</u>

Lurking towards empowerment: Explaining propensity to engage with online support groups and its association with positive outcomes

Online support groups (OSGs) offer opportunities for people with various health conditions to gain support and associated physical and mental health benefits, however evidence suggests that those who choose to lurk in OSGs may be less likely to accrue benefits (e.g. empowering outcomes) than those who actively contribute.

Most research to date has focused on comparing the outcomes of OSG engagement for lurkers and participators, yet there has been little research which has considered how the different reasons for lurking might be associated with levels of participation and empowering processes.

In this investigation we used a survey to gather data from 237 participants to develop a new scale to measure factors influencing the Propensity for Online Community Contribution (POCCS), and to explore the relationship between these factors and OSG engagement behaviour and empowering processes accrued from OSG use. The POCCS comprised nine factors, 1) poor sense of community; 2) struggles with self-expression; 3) inhibited disclosure and privacy; 4) negative online interactions; 5) ease of access and use; 6) health preventing contribution; 7) delayed and selective contribution; 8) goals met without contribution; and 9) lack of time. Five of these factors (1, 3, 6, 7, and 8) significantly predicted OSG contribution and positive experiences in the form of empowering processes.

Findings advocate a more nuanced approach to OSG engagement, rather than a simple lurking/engaging dichotomy, and may enhance understanding of the relationship between OSG use and perceived benefits.







Dr Wendy Nicholls

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It's not just 'What' you do, it's also the 'Way' that you do it: Patient and Public Involvement in the Development of Health Research

This presentation demonstrates a reflective account of Patient and Public Involvement (PPI) in the development of obesity and binge eating research.

We established Patient Advisory Groups (PAGs) at two English regional National Health Service (NHS) weight management services. The authors followed INVOLVE guidelines for PPI using hierarchical levels of collaborative working.

Volunteer participants were obese patients with Binge Eating Disorder (BED) who were accessing or had recently accessed NHS weight management services (female n = 8; male n = 2), patient volunteers (male n = 1), and practitioners working with BED-Obese patients (female n = 2; male n = 1).

Results in the form of reflections suggest guidelines on undertaking PPI were helpful with regards what to do, but less helpful on how. For example, suggestions for the management of interpersonal factors such as eliciting self-disclosure and managing power differentials are insufficiently addressed in existing guidelines.

The present case study illustrated how interpersonal considerations can help or hinder the optimal use of PPI. Recommendations for practitioners and researchers planning PPI are offered.







Dr Joanne Lloyd

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Sense of control in videogames versus 'the real world'

Having an external locus of control, i.e. feeling that one's life and experiences are governed by chance and other external forces, has been linked with addictive behaviours, including 'problematic gaming'. This could be simply due to a (perceived) lack of ability to control one's behaviour correlating with tendency to engage excessively in rewarding activities. However, it is also possible that people who do not feel a strong sense of control over their own day-to-day lives are particularly drawn to videogames, where due to the nature of the environment, they may feel a greater sense of control.

This online survey study asked 113 gamers (mean age 30.34 years) to complete a traditional locus of control scale alongside a modified scale, adapted to capture feelings of control 'in-game'. Self-report ratings of gaming frequency, gaming-related difficulties, in-game enjoyment, and post-game enjoyment were also collected, using pre-validated scales.

Linear regression analyses indicated that frequency of videogame play was predicted by higher external locus of control in the real world, but by lower external locus of control in the game world, and by in-game enjoyment; in other words, feeling low control over one's real life, but high control over the game world, along with enjoying videogames, predicted more frequent gaming.

However, when looking at the same predictors in relation to problematic gaming symptoms, neither type of locus of control was significant. This suggests that locus of control may be a better predictor of gaming frequency than of gaming problems per se, and that one of the reasons why frequent (but not necessarily problematic) gamers enjoy playing may be a heightened sense of control within the videogame environment.







Elizabeth Raye Research Student in Psychology Faculty of Education, Health & Wellbeing <u>e.a.raye@wlv.ac.uk</u>

A systematic review of resilience in adults with an intellectual disability

Resilience, a dynamic psychological process of positive adaptation in the context of significant adversity, is seen as a key element in maintaining wellbeing. Adverse life-events can negatively affect wellbeing and research suggests that people with intellectual disabilities experience higher rates of trauma than their non-disabled counterparts. Despite this, resilience is still under researched in people with intellectual disabilities.

Research has begun to explore resilience in this population with focus on the role of environmental and social aspects of resilience. Dispositional approaches to resilience which have prevailed in traditional resilience research ignore these factors, disadvantaging people with intellectual disabilities and making it impossible for them to be perceived as resilient. This systematic review collects the extant evidence regarding resilience in people with intellectual disabilities.

An electronic database search was performed using EBSCO and Web of Science. Searches combined terms for intellectual disabilities and resilience. Results were reviewed by both researchers and 12 empirical studies and 9 non-empirical papers were selected.

Themes generated from the review of the articles were 'Risk factors associated with resilience' and 'Factors associated with promoting or building resilience'. The review also reflects on the notion of positive risk taking and overprotection in this population which may serve to inhibit the development of resilience.

The review discusses a need for reframing of the concept of resilience to be more inclusive of people with intellectual disabilities. This review will inform a series of studies into the way people with intellectual disabilities understand and experience resilience themselves.







Dr Lisa Orchard

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Personality and Motivations for use as Predictors of Facebook Behaviours

Personality has previously been found to predict differing motivations towards social media usage. For instance, neuroticism has been linked to using social media for escapism, whilst extraversion is linked to increasing one's social network. However, research has yet to consider how motivations behind social media use may feed into actual behaviours within the site itself.

The current study aims to explore this connection in order to further understand the implications of social media usage, particularly given the intense debate in the field currently around whether social media addiction should be considered a true addiction. Indirectly, the current study also offers further validation of the Social Media Motivations Scale (SMMS) through exploring its construct validity through related scales.

Questionnaire data were collected from approximately 180 undergraduate students within the age range of 18-25 years. Participants were asked to complete four existing scales relating to their Big Five personality, social media motivations, Facebook behaviours, and Facebook dependency.

Data has yet to be analysed. However, it is hypothesised that personality and motivations of use will predict actual Facebook behaviours. Results will highlight "at-risk" usage and implications for healthy engagement with social media sites will be discussed.







Dr Danny Hinton

Senior Lecturer in Psychology Faculty of Education, Health and Wellbeing D.Hinton@wlv.ac.uk

The Blind Leading the Blind: A Re-examination of the Efficacy of Anonymous Marking for Reducing Group Attainment Differences

The presentation explores the issues of performance differences in higher education assessment, particularly in the context of a common measure taken to address them. While performance differences in written examinations are relatively well researched, few studies have examined the efficacy of anonymous marking in reducing these performance differences, particularly in modern student populations.

By examining a large archive (N = 30674) of assessment data spanning a twelve-year period, the relationship between assessment marks and factors such as ethnic group, gender and socio-environmental background was investigated. In particular, analysis focused on the impact that the implementation of anonymous marking for assessment of written examinations and coursework has had on the magnitude of mean score differences between demographic groups of students.

While group differences were found to be pervasive in higher education assessment, these differences were observed to be relatively small in practical terms. Further, it appears that the introduction of anonymous marking has had a negligible effect in reducing them.

The implications of these results will be discussed, focusing on two issues, firstly a defence of examinations as a fair and legitimate form of assessment in Higher Education, and, secondly, a call for the re-examination of the efficacy of anonymous marking in reducing group performance differences.







Dr Dean Petters Senior Lecturer in Psychology Faculty of Education, Health & Wellbeing D.Petters@wlv.ac.uk

Towards integrated lifespan models of social and emotional attachment

Attachment relationships involve the development of preference for one or a few carers and expectations about their availability and responsiveness as a haven of safety and a base from which to explore. In attachment theory, mental representations have been assigned a central organising role in explaining attachment phenomena.

The aim of this research to explore a constructive revision of the conceptual underpinnings of Attachment Theory through a theoretical encounter with the diverse elements of 4e cognition.

This presentation considers a number of questions about the development and interplay of attachment and cognition. These include: (1) the nature of what Bowlby called 'internal working models of attachment'; (2) the extent to which the infant–carer dyad functions as an extension of the infant's mind; and (3) whether Bowlby's attachment control system concept can be usefully re-framed in enactive terms where traditional cognitivist representations are: (3i) substituted for sensorimotor skill-focused mediating representations; (3ii) viewed as arising from autopoietic living organisms; and/or (3iii) mostly composed from the non-contentful mechanisms of basic minds?

A theme that cross-cuts these research questions is how representations for capturing meaning, and structures for adaptive control, are both required to explain the full range of behaviour of interest to Attachment Theory researchers.

The presentation will show that the phenomena of interest to attachment researchers are so broad that no narrow conceptualisation of cognition will suffice. Instead, researchers in this area who are interested in developing information processing architectures for attachment need to integrate widely from embodied as well as discursive approaches to understanding the mind.







Dr Debbie Stevens-Gill Senior Lecturer Faculty of Education, Health & Wellbeing <u>d.stevens-gill@wlv.ac.uk</u>

Self-compassion, Work- Family Conflict and Organisational Commitment of healthcare workers

Over the last 50 years, healthcare sector industry wide change has seen longer hours and increasing work demands. As a result, individuals are struggling to find a healthy balance between work life and family life, resulting in reduced life and job satisfaction. Reduced employee well-being has been shown to also affect organisational commitment, resulting in poor job - related outcomes.

The concept of self-compassion has been shown to act as a buffer to relieve negative attitudes and increase healthy and positive outcomes. The study consisted of 60 participants, working within the healthcare sector. All participants were required to complete three web-based questionnaires: Work –family conflict, Organisational commitment and self – compassion. A Hierarchical regression was used to perform a moderator analysis.

The analysis indicated there was weak positive correlation between WFC and AC demonstrating that levels of WFC do impact upon levels of AC. Furthermore, a Hierarchical regression was conducted, to examine if SC moderated the relationship between WFC and level of organisational commitment. SC significantly moderated the relationship between WFC and AC. The results suggest that SC impacted the relationship between the two variables. The results also suggest that healthcare workers who exude SC are more likely to show AC to their organisation.

In conclusion, SC was shown to moderate the relationship between WFC and level of OC, and improving the level of SC within an individual can benefit their work performance and family life. Recommendations for implicating this within organisations are made within the discussion.







Sumera Ahmed, Research Student Department of Psychology Faculty of Education, Health & Wellbeing <u>S.Ahmed15@wlv.ac.uk</u>

The Impact of Emotional Valence on Item-Method Directed Forgetting

Forgetting is often viewed as passive and accidental, but this is not always the case as forgetting can also be performed intentionally. This caters to the concept of mental wellbeing where forgetting offers an active and healthy defence against unwanted memories.

To test this notion, two experiments were conducted using the Directed Forgetting (DF) paradigm with emotionally valenced words. In each experiment, participants viewed positive, negative and neutral words followed by cues instructing them to either forget or remember each item. At the end of the presentation, participants were told to disregard the cues and try to recall all the words.

Results from both experiments showed a strong DF effect, with a higher rate of recall for the 'remember' words in comparison to the 'forget' words. Emotionally valenced words were also better recalled than neutral words, but were susceptible to DF. Additionally, remember-positive words were recalled better than remember-negative words.

In both studies memory control was effective, even for negatively valenced items. In conclusion, intentional forgetting may be a normal daily occurrence that allows individual to preserve a positive mental state.







Trevor Flowers, Research Student Department of Psychology Faculty of Education, Health & Wellbeing <u>T.Flowers@wlv.ac.uk</u>

If gelotophobes smile differently to non-gelotophobes during interviews, can the emphatic underpinning of counselling psychologists enable detection above non-counselling psychologists?

This study will investigate counselling psychologists' (CP) and non-counselling psychologists' (NCP) perceptions of emotional states being signalled by gelotophobes' (the fear of being laughed at) and non-gelotophobes' responding expressions of joy and whether empathy is a predictive factor in the recognition of gelotophobes' from non-gelotophobes' responses.

A quasi-experimental design. A multiple regression will be computed to assess whether the empathy and empathic concern of CP's and NCP's, are predicative in identifying the responses from gelotophobes from non-gelotophobes.

The study will use a quantitative method. Participants shown screenshots from video clips of gelotophobes and non-gelotophobes in a standardised interview setting, and asked to identify their emotion (anger, sadness, joy, disgust, surprise, fear, or neutral). The participants are then asked whether they believe the person in the screenshot has gelotophobia. The video clip participants were pre-screened, with GELOPH <15> to establish the presence of gelotophobia and pre-coded using FACS, which affords comparison between the intended and assessed facial expression displayed. All participants will also be asked to complete the Interpersonal Reactivity Scale (IRS) and The Empathy Quotient (EQ) questionnaires in order to gain a measure of participants' empathy, and empathic concern.

This study will indicate whether CP's empathic understanding and unconditional positive regard can predict successful outcomes in differentiating gelotophobes' from non-gelotophobes' responses to joyful emotions. As such, give an indication of the potential impact of gelotophobia on the therapeutic relationship via metacommunication errors.







Dr Josephine Chen-Wilson Senior Lecturer in Psychology Faculty of Education, Health & Wellbeing j.chen-wilson@wlv.ac.uk

It is not just who you know: exploring the influence of social and science capital on children's career aspirations

The notion of social and science capital has been used to explain the achievement gap between children from more deprived background and their wealthier counterparts (DeWitt et al., 2013). The current study analysed data from 111 children from Years 5 and 6 in primary schools to explore the effects of social and science capital on their future aspirations in terms of career choice and intention to study in higher education.

Most of the children were recruited from the West Midlands with higher proportions of pupils on free-school-meal and special education needs than the national averages. The children completed a short survey that also measured their attitudes towards STEM subjects. The data were analysed using regression analysis and analysis of variance.

The preliminary analysis revealed a complex interplay between the child's social and science capital, school factors and their attitude towards STEM subjects affecting their aspiration to carry on to higher education and take up a science career. Most children showed a lower level of aspiration in STEM careers compared to studying at the university level. In spite of their high regards of individuals in the STEM professions, very few children identified themselves to those individuals. However, there were also marked differences across the schools in terms of the pupils' career aspirations and attitude towards STEM careers. The presentation will discuss these findings in more depth.







Leanne Kidson, Graduate Teaching Assistant Department of Psychology Faculty of Education, Health & Wellbeing L.Kidson@wlv.ac.uk

An Interpretative Phenomenological Analysis (IPA) Study: Exploring the Impact that Media Portrayals of Child Sexual Abuse Survivors have on Survivors Motivation to Disclose Abuse.

The psychological effects of CSA on an individual are complex. Despite increased societal understanding of Child Sexual Abuse (CSA) in recent times, CSA myths are not easily dispelled. As the principal informing agent, the mass media have a responsibility to report objectively, though research suggests that sensationalism and negative stereotypical portrayals continue to belittle and disempower survivors.

Recent literature suggests that consequently survivors are less likely to make formal disclosures of CSA, which has implications for the individual and other members of society. Conversely, governmental statistics suggest that disclosures have increased in line with an increase in high-profile CSA media reports.

A purposive sample of four professional therapists agreed to be partake in a semi-structured interview. The study sought to explore how the media portray survivors of CSA, and how the media influence formal disclosures. Data was analysed through Interpretative Phenomenological Analysis (IPA). Through review of the themes it is demonstrated that mass media outlets sensationally portray a 'stereotypical victim', which fails to represent the majority of survivors. It is also demonstrated how media reporting can have both a positive and negative influence on survivors disclosing abuse.

Society would benefit from being appropriately informed of the impact of the media portraying survivors stereotypically, so to empower them to speak out. Recommendations are made for both clinical practice and education providers, as well as suggestions for further research.







Dr Stephanie Rhodes Demonstrator in Psychology Faculty of Education, Health & Wellbeing stephanierhodes@wlv.ac.uk

Jumping to Conclusions in Delusional Thinking

Delusions are currently understood as 'false beliefs based upon incorrect inference' (American Psychiatric Association, 1994) and have been associated with a tendency to jump to conclusions. In simpler terms, those with delusions will reach final decisions earlier upon the basis of little evidence. Whilst delusional thinking was primarily linked to the signs and symptoms of mental ill health, concurrent research has highlighted the prevalence of delusions amongst normal and healthy individuals.

However, current analysis into the jump to conclusions bias in healthy adults was not detected in numerous experimental designs. Whilst subtle differences in data gathering were detected, the tendency to request less information was significantly associated with the type of task and the way in which the information was delivered. In addition, data gathering appeared to be influenced by discreet components of delusional thinking i.e. data gathering differed between belief conviction, preoccupation and distress. Furthermore, belief conviction was strongly associated with rationality.

It was concluded that jumping to conclusions may not be prevalent amongst healthy individuals. This questions the reliability of studies that investigate healthy individuals to design treatment programmes for clinical patients. The suggestion that delusional belief conviction could be a form of rational thinking was also explored.







<u>Dr Niall Galbraith</u>

Senior Lecturer Faculty of Education, Health & Wellbeing <u>n.galbraith@wlv.ac.uk</u>

Delusion proneness and romantic jealousy

Romantic jealousy may share some of the psychological characteristics of delusions, but no research has previously explored the relation between them.

We aimed to test whether delusion proneness was related to

- 1) self-reported romantic jealousy and
- 2) gathering data about infidelity.

Study 1 established that delusion-proneness was related to romantic jealousy. Study 2 found that paranoia (suspicion of others) was linked with gathering more data about infidelity; proneness to bizarre delusional ideas (e.g. ideas of external influence) was linked with gathering less data (jumping to conclusions) about infidelity.

The implications for understanding jealousy and relationships, particularly in those with delusion proneness, are discussed.





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Understanding Honour based violence- The role of sexism and scripting amongst Pakistani adults living in rural Pakistan Administered Kashmir and Pakistan and the UK

There is a high incidence of honour-based violence (HBV) and one third of honour killings take place in Pakistan. Sexism is the root of gender-based violence and permits harmful practices. Both hostile and benevolent sexism exploit and disempower women. Through cultural scripting the practice of HBV may be passed on down the generations and may explain the prevalence of HBV in the UK and in Pakistan. The rationale behind the research question is to develop an understanding of HBV and the role sexism and scripting have in maintaining this practice. To date, there is no research that studies the role of sexism and scripting within the construct of HBV.

This research aims to examine the role of sexism and cultural scripting on HBV beliefs as well as explore the significant drivers promoting and perpetuating HBV beliefs within the community.

This study adopted a mixed methods design combining surveys and semi-structured interviews. A questionnaire consisting of social demographics, the ambivalent sexism inventory, gender scripting and behaviour and reputations scale was used to collect data. The questionnaire was administered in English and Urdu. The study proposed to adopt regression analysis and Interpretive Phenomenological Analysis (IPA). To date, data from Pakistan and Kashmir have been completed (N=249 surveys; N=9 interviews). Data from Pakistan and Kashmir community residing in the UK is ongoing.

Preliminary results from surveys showed a significant prevalence of HBV beliefs among those residing in Pakistan and Kashmir.





Day Two: Tuesday 12th June 2018 **Research Student** Conference – Schedule of Events





Time	Activity		
09:30	Registration & Refreshments (MC437)		
09:45	Welcome & Opening – Professor Silke Machold, Dean of Research (MC001, Lecture Theatre)		
09:50 -10:20	Keynote: Professor Geoff Layer (MC001, Lecture Theatre)		
	Group 1 (MC414)	Group 2 (MC415)	Group 3 (MC413)
10:30 -10:45	Masculinity, conflict and an act of hiding and showing - Kirsten Adkins (FoA)	The biological production of eco-friendly plastics from waste plastics for novel applications – Brian Johnston (FSE)	Working responsibly within Narrative Inquiry - Lynn Richards (FEHW)
10:50 - 11:05	Impact of the Leader-member exchange relationship on leaders' entrepreneurial tendency - Abinotam Adike (FoSS)	The Discursive Analysis of the Therapeutic Interactions Between Black Therapists and their Black Clients - Temitope Lawal (FEHW)	Looking Back To See What Could Come Next: How Our Collective Memories Should Shape Our Future World Of Work – Edda Nicolson (FoSS)
11:15 – 11:30	Designing Play Equipment for Children with Cerebral Palsy – Ganna Borzenkova (FoA)	A-Wakening: A Collaborative Audio-Visual Environmental Installation Jo Mills & Dr Chris Foster (FoA)	Cloud Computing Adoption in Enterprise: Challenges and Benefits - Raja Muhammad Ubaid Ullah (FSE)
11:35 - 11:50	The Effect of Freeze Drying on Powder Honey Produced Using Maltodextrin, Gum Arabic and Soy Protein Isolate as Lyoprotectant – Fatima Buba (FSE)	Choreographing boys' negotiations of their gender expression in dance using a write, draw, show & tell methodology – Helen Keane (FEHW)	Physical Activity in Rheumatic Diseases: A Qualitative Study - Panagiotis Vitalis (FEHW)
11:55 – 12:10	Do older adults obesity and overweight prevent dementia risk? - A new population- based cohort study from China – Isaac Danat (FEHW)	Perceptions and experiences of female Emirati Bedouin learners engaged in a western discourse curriculum – Thiavashni Naidu (FEHW)	Socioeconomic Status and Risk of Stroke in Older People: the Anhui cohort study in China - Weiju Zhou (FEHW)
12:15 - 12:25	Men's perception toward Female Genital Mutilation in Nigeria - Ngozika Jane Hemuka (FEHW)	Financing of Family Businesses in Nigeria - Afusat Jaiyeola (FoSS)	
12:30 - 1:30	Lunch & Networking (MC437)		
13:30 - 16:00	 Poster Competition & Exhibition (MC437) Doctoral Depictions Exhibition 		
4pm	Closing & Prize giving – Professor Silke Machold (MC437)		
17:00-19:00	University of Wolverhampton Lecture Series (Chancellor's Hall) Danielle Brown – Success is a choice Danielle will explore the relationship between success and our mind-set. Coming from a world where one tiny mistake is the difference between winning and failing, Danielle will challenge the way you think and demonstrate how to harness the powers of vision and self-belief to pursue excellence.		



Keynote Speaker





Professor Geoff Layer

Vice Chancellor University of Wolverhampton

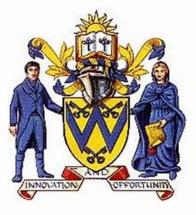
Geoff Layer has been the Vice Chancellor of the University of Wolverhampton since August 2011.

He graduated from Newcastle Polytechnic with a LLB (Hons) and entered a teaching and research career initially in Manchester and then in Luton. He joined the Sheffield Business School in 1983 as a Lecturer in Law. Whilst at Sheffield Hallam University he established a suite of access and student support initiatives leading to the establishment of a national reputation for inclusive learning. He was an adviser to a range of national quality assurance and educational development initiatives and became Professor of Lifelong Learning in 1996. He joined the University of Bradford in 1999 and became Pro Vice-Chancellor and then Deputy Vice-Chancellor (Academic), until joining Wolverhampton in 2011.

He is a Board member of the following local, regional and national boards and committees:

- Black Country Local Enterprise Partnership
- Black Country Chamber of Commerce
- Equality Challenge Unit
- QAA Advisory Committee on Degree Awarding Powers
- Higher Education Academy
- Open College Network West Midlands
- Universities Association for Lifelong Learning
- Chair of the Disabled Students Sector Leadership Group

He is a Fellow of the Royal Society of Arts, a Principal Fellow of the Higher Education Academy, a Fellow of Leeds College of Music and was awarded the OBE for services to Higher Education in 2003.









Kirsten Adkins, Research Student Postgraduate research in Media and Communications Faculty of Arts <u>k.a.adkins@wlv.ac.uk</u>

Masculinity, conflict and an act of hiding and showing

My research explores representations of masculinity, trauma and armed conflict. It analyses these themes through television news and advertising formats. I am interested in the impact of technology and narrative construction on how armed conflict is understood. The research discusses a complex layering of visual references and hidden meanings seen in the representation of conscriptions to war.

The British Army recruitment campaigns: "Be the Best" (2016) combines a visual grammar of violent combat with the language of nurture and belonging. The films utilise disrupted imagery associated with trauma. But a commentary speaks of inclusion, self-development, life-skills and learning to cook. Violence appears in momentary revelations, but is then immersed in the familiar and commonplace.

In the recruitment series 'This is Belonging' (2018), locations of trauma appear as sites of exile. Action and inaction takes place in void or forgotten spaces. Omission becomes 'more essential than presence' (Badiou 78). Is the absence of trauma more comforting than the spectacle being avoided?



Group 1





Abinotam Adike, Research Student Postgraduate research in Business Faculty of Social Sciences <u>A.J.Adike@wlv.ac.uk</u>

Impact of the Leader-member exchange relationship on leaders' entrepreneurial tendency

The management of organisational resources and processes to achieve targeted objectives requires understanding behavioural dynamics, among other things, and especially in this contemporary age. This is particularly important for organisations operating in very competitive and dynamic business environments. Management approaches and leadership styles that define leadership effectiveness are critical issues in these contexts. Leaders have the responsibility of aligning the goals of the organisation with the personal goals of individuals within such organisations.

This makes the relationship between leaders and their subordinates a critical issue. When these relationships are poorly managed then the effects on organisational outcomes could be very detrimental to the organisation. Thus, the imperative to empirically examine the nature of the leader-member relationship cannot be overemphasised. Research exists that examines the leader-member exchange relationship. Few of these studies examined the effect of such exchange relationship on various employee work outcomes. However, such studies have always been unidirectional.

While research has focused on examining how the leader-member relationship impacts on various work dimensions of the subordinate, no study has considered how such relationships impact on the work role of the leader. This study conceptually examines this gap in the literature, with particular reference to organisations in the private sector.



Group 1





Ganna Borzenkova, Research Student Postgraduate research in Art and Design Faculty of Arts <u>g.a.borzenkova@wlv.ac.uk</u>

Designing Play Equipment for Children with Cerebral Palsy

This study presents an investigation into designing play equipment for encouraging peer-to-peer social interactions of children with cerebral palsy as a part of developing their social competence. According to the statistics of the NHS (2016), it is estimated that near 1800 children are diagnosed with cerebral palsy every year in the UK. It is recognised that these children often have reduced social engagement, yet socialization plays a fundamental role in children's development. In spite of this need, there are few toys specifically developed for children with cerebral palsy, and even fewer which support peer socialisation.

We offer a new model for play equipment design to guide designers in creating toys for the development of the social competence of these children. Here the designer's task shifts to constructing semiotic content that can trigger cognitive, emotional and physical processes of children to encourage aspiration to interact with the designed objects and to build social interactions through these objects. Play equipment should trigger interactions between children not only around itself but by means of itself. According to this model, design guidelines have been developed. Based on the guidelines, a number of design ideas were created, using ideation, intuitive hand sketching and brainstorming.

The research is interdisciplinary and steered by a social perspective on disability. It combines theoretical investigation with design practice within an action research approach. A child-centred design approach was applied with adaptation for purposes of the study. Observations of children and interviews with their parents are employed for collecting data about children's social interactions before and after the design intervention in order to determine the effectiveness of the suggested model.

The study provides new understandings of designing play equipment for the development of social competence for children with cerebral palsy and provides a set of design guidelines for this specialist play equipment.







Fatimah Buba, Research Student Postgraduate research in Pharmacy Faculty of Science & Engineering <u>f.buba@wlv.ac.uk</u>

The Effect Of Freeze Drying On Powder Honey Produced Using Maltodextrin, Gum Arabic And Soy Protein Isolate As Lyoprotectant

The viscous and sticky nature of honey hinders its use in a wide range of applications and also the drying process due to its low transition temperature. Materials of high molecular weight are utilized to aid the drying process; increase transition temperature, shelf life, and reduce the problems of fermentation and development of osmophile yeast.

In this study we aim to assess the suitability of using three different wall materials as a lyoprotectant for the production of honey powder by freeze drying (FD). Formulations were made in four honey concentrations via these wall materials by homogenizing aqueous mixtures for 5minutes, freezing at -5°C for 6hrs, and (FD) at -20°C for 72hrs. FD powders were characterized for moisture content, water activity, powder solubility, and diastase and antioxidant activity.

The resultant honey powders show less moisture content with the highest being measured in soy protein isolate (SPI). This could be due to its water holding capacity. The honey powders produced were within the speculated water activity range (<0.62); which is free from any microbial growth or chemical reactions. The clear solubility difference observed among wall materials towards honey concentration could be due to hydrophilic and hydrophobic properties. Diastase activity of most samples falls below the original value, possibly due to low moisture content to maintain the three dimensional structure of the whole amount of diastase in its active form. Antioxidant activity increases with increasing honey concentration while the most pronounced increment was observed in SPI. Maltodextrin and gum Arabic appears to be the effective and active lyoprotentants for the production of FD honey powder.







Isaac Danat , Research Student Postgraduate research in Health Faculty of Education, Health & Wellbeing I.M.Danat@wlv.ac.uk

Do older adults obesity and overweight prevent dementia risk? - A new population-based cohort study from China

There is a debate on whether overweight and obesity in older age increase or reduce the risk of late-life dementia. Little is known on gender differences in the impacts of overweight and obesity in older age on the risk of dementia.

We examined data from the Anhui cohort of 3336 participants aged \geq 65 years who were randomly recruited from the urban and rural communities, China. Using a standard method we interviewed them to record general health and risk factors, measure body weight, height and waist circumference (WC) and diagnose dementia. They were followed up until 2011 in 3 surveys at 1, 7 and 10 years after baseline.

Among 2,430 participants with no baseline dementia, 271 developed dementia over 10 years follow-up. Compared to those with BMI <24 kg/m2, multivariate adjusted odd ratio (OR) for incident dementia in participants with overweight (BMI 24-<28.0) and obesity (BMI ≥28) were 1.06 (95% CI 0.79-1.42) and 1.00 (0.63-1.57). The matched figures in men were 2.16 (1.33-3.51) and 2.63 (1.28-5.42), and in women 0.66 (0.45-0.98) and 0.52 (0.28-0.97) respectively. After excluding data of <=1 year incident dementia, these ORs in men were 3.09 (1.65-5.77) and 4.19 (1.75-10.03), and in women 0.74 (0.43-1.27) and 0.72 (0.32-1.64). Data from WC showed similar patterns of the impacts of overweight and obesity on risk of dementia

Overweight and obesity in older age increased the risk of late-life dementia in men but not in women. Controlling body weigh in older age may prevent dementia worldwide.



Group 1



Ngozika Jane Hemuka, Research Student Postgraduate research in Health Faculty of Education, Health & Wellbeing <u>N.J.Hemuka@wlv.ac.uk</u>

Men's perception toward Female Genital Mutilation in Nigeria

Female Genital Mutilation (FGM) is the cutting of the external female genital organs for non-medical purposes. It is a public health problem that is widespread in Nigeria. It is of particular concern as it affects the health of women and girls and has been categorised as a violation of the fundamental human rights of women and girls as well as abuse against children. As such, the views and attitudes of women about the practice are widely researched and known however, very little empirical research has been conducted to attempt to explain the views of men about the practice.

This study aims to investigates men's knowledge and perceptions toward FGM in a local Igbo community in Nigeria.

A cross-sectional study was conducted in Uturu Abia State, Nigeria from August to September 2017. A convenience sampling technique was employed to recruit a total of 258 men who are natives and currently living in the village.

Out of the 258 men who responded to the invitation, 215 respondents completed the questionnaire and returned them. Response rate was at least 83%. The findings of the study revealed that 100% of the men have heard of the practice of FGM however, only 69% have knowledge of any health consequences related to FGM. 58% of the men think that FGM is harmful to women and as a result, 58% of the men thinks that it is a bad practice and that it such be discontinued (63%).

Although this study provides evidence on the positive attitude toward the abandonment of FGM among men in Uturu Nigeria, there is a need to educate men about the health consequences of the practice and increase the knowledge on policies regarding FGM in Nigeria.







Brian Johnston, Research Student Postgraduate research in Microbiology Faculty of Science & Engineering <u>b.johnston@wlv.ac.uk</u>

The biological production of eco-friendly plastics from waste plastics for novel applications

High levels of plastic in our oceans means that alternatives to traditional plastics are urgently required. Polyhydroxyalkanoates (PHAs) are a group of biocompatible, non-toxic and biodegradable plastics that are produced by some bacteria. The main factors limiting the widespread usage of PHAs are: high production costs due to food-related sources required by microorganisms and the expensive chemical processing requirements.

This study introduces the use of oxidised polyethylene wax (O-PEW) and non-oxidised polyethylene wax (N-PEW) as carbon sources for PHA biosynthesis. The waxes were obtained from a chemical process that utilised waste plastics and melted them down into consistent waxes. These waxes were then fed to bacteria in fermentation chambers to make PHAs. The bacterial strain known as Cupriavidus necator H16 was selected for the study due to its well-documented genetic profile and ability to produce PHAs at low temperatures.

The microbes were grown for 48 hours in both nitrogen rich and nitrogen-limited environments that were supplemented with O-PEW or N-PEW. Under those conditions the accumulation of PHAs varied from 20% to 40 % (wt / wt) of dry biomass in both growth media. The biopolymers produced were then chemically analysed to assess their structure.

It can be concluded, that O-PEW and N-PEW could become a promising carbon-source for PHA production in the future. We have also demonstrated that human cells can be grown on 3D-printed PHA-blend scaffolds and PHA-blend biofilms containing herbicides can biodegrade efficiently and distribute their chemical loads to successfully prevent weed growth [5-6].







Temitope Lawal, Research Student Professional Doctorate in Counselling Psychology Faculty of Education, Health & Wellbeing <u>T.Lawal@wlv.ac.uk</u>

The Discursive Analysis of the Therapeutic Interactions Between Black Therapists and their Black Clients.

A wealth of research has explored the barriers to therapy experienced by Black and Minority Ethnic (BME) clients. The impacts of the cultural differences between the therapist and their clients on the therapeutic process have also been examined. Consistent positive therapeutic outcomes have been reported when the client and the practitioner are of the same ethnicity and cultural background whereas the reported therapeutic outcomes are inconsistent when there is an ethnic/cultural incongruity. However, there is very limited research that specifically addresses the discursive significance of the interactions between black therapists and their black clients.

The purpose of this research is to examine the discursive occurrences within therapy between black therapists and their black clients by exploring factors such as: subject positions, interpretative repertoires, turn taking and discourse markers.

Audio recordings of real therapy sessions with participating black therapists and their consenting clients will be analysed using discourse analysis. Discourse analysis unlike other linguistic investigation studies explores how language flows in an attempt to understand the meaning of talk. The focus of the analysis will be to identify the function within both the therapist's and client's talk via their linguistic exchange. Function is concerned with the purpose behind an individual's talk, examining not just what has been said but what the talk is meant to achieve.

The use of discourse analysis in the current study will be firmly rooted in the realities embedded in therapeutic sessions rather than relying on the participant's retrospective responses. Therefore, it offers a better understanding and insight into the nature of these dynamics and their potential for effective health care.







Joanne Mills, Research Student Postgraduate research in Art and Design & Dr Chris Foster, Senior Lecturer in Music Faculty of Arts J.T.Mills@wlv.ac.uk

A-Wakening: A Collaborative Audio-Visual Environmental Installation.

A-Wakening is a collaboration between Joanne Mills and Dr Chris Foster. A multi-sensory environmental installation developed to respond to the active and immersive relationship between audience and artwork, a dark space is filled with haze, scent and projected animation in which extended sounds articulate a varied indeterminate texture and a melodic soundscape created by a phased musical structure, creating a space to be experienced and explored.

The music for this piece was derived from a series of piano overtones arranged in pairs of differing length and set against each other. Since the duration of each pair differs, the sounds move slowly in and out of phase. The result is a varied pattern of short melodic figures that never repeat exactly and constantly surprise. An underlying pulse occurs in the lower notes producing a slow alternation – rather like breathing or the motions of a clock. This, too, shifts over time but it establishes a ground against which the longer stretches of material interact. The music is split into individual channels and played back across eight speakers, creating an immersive soundscape that surrounds the listener as they explore the space.

This investigation from which this practical work is developed contributes new knowledge to the development of immersive art, by focusing on the work of early Minimalist composers, who have so far been missing from its lineage; and as such has the potential to inform both fine art practice, art history and musicology.







<u>Ms Helen Keane</u>, Research Student Professional Doctorate in Education Faculty of Education, Health & Wellbeing <u>H.Keane@wlv.ac.uk</u>

Choreographing boys' negotiations of their gender expression in dance using a write, draw, show and tell methodology

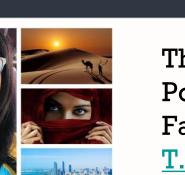
This presentation will offer a critical reflection of the lessons learned from a pilot study for a Doctorate in Education. It will explore the aspects in which dance and gender intersect in a primary school context.

The presentation will highlight how the pilot study has been used in two different ways; to highlight the feasibility of a study of this nature in preparation for the main study and to investigate the practicality of a child-friendly methodology, known as write, draw, show and tell (WDST).

The research was guided by the following questions;

- 1. How practical is the use of write, draw, show and tell methodology with regards to content and clarity for unearthing the voices of boys?
- 2. What are boys attitudes, meaning-making and experiences in dance?





Thivashni Naidu, Research Student Postgraduate research in Education Faculty of Education, Health & Wellbeing <u>T.Naidu@wlv.ac.uk</u>

Perceptions and experiences of female Emirati bedouin learners engaged in a western discourse curriculum: a proposed ethnographic case study.

Over the last forty-six years, Abu Dhabi, the capital city of the United Arab Emirates, has striven to include a western discourse curriculum into its education system, alongside an existing traditional Emirati discourse. Through the use of a proposed ethnographic case study design, this research is motivated by the ideals of culturally responsive pedagogy which includes the need to give voice to the lived experiences of female Emirati Bedouin learners' engagement with a western discourse curriculum.

This study aims to explore qualitative, case study narratives of female Emirati Bedouin secondary school learners (15-18 years), in a rapidly globalising, yet nationalistic school context in the western region of Abu Dhabi. A central premise in this moderate constructivist study is the concept of cultural capital within a multidimensional setting coupled with the aim of understanding the link between classroom experience, Emirati bedouin household values and a sense of acculturation. This link is supported by Gee (2014) who stresses the importance of both conversation and narrative analysis as a tool in understanding participants' stories. Another aim of this study is that it will serve as a pool of illumination in terms of inclusive practice ideals for the western expatriate teacher striving to interpret a hybrid discourse in an Emirati Bedouin populated classroom.

The subjective stories of participants will be analysed in the hope of uncovering themes that contribute to questions of participants' perceived identity, engagements with a western discourse curriculum and experiences of learning English as a second language. It is hoped that through this exploration, the voice of female Emirati Bedouin learners would form an important premise of understanding the complexity of participants' intersections with a western discourse curriculum, a traditional discourse and the expatriate teacher.





Afusat Jaiyeola, Research Student Postgraduate research in Business Faculty of Social Sciences <u>A.Jaiyeola@wlv.ac.uk</u>

Financing of Family Businesses in Nigeria

Family businesses form a significant part of the economic landscape of many countries. In most economies, family businesses are estimated to represent over two-thirds of all businesses and account for about half of the economic activity and private employment contributing to the Gross Domestic Product (GDP). However, their poor survival rate is a continuing source of concern all over the world.

The literature reveals that economic development, growth and poverty alleviation are significantly linked with sustainable and reliable operations of the family business. This is predominantly relevant to Nigeria which seeks to diversify its real sector by reducing overdependence on the volatile oil sector. In recognition of these predicaments, the Nigeria government embarked on various measures in form of initiatives, programmes, and policies. Among this initiative is the establishment of the small and medium enterprise development agency of Nigeria (SMEDAN) (Tende, 2014). However, as it is the situation in many developing nations, family business are faced with poor access to financial resources, and little research seems to have focused on factors affecting the performance of the family business in sub-Saharan African countries including Nigeria. The research is therefore aimed at assessing the factors which affect the performance of the family business in Nigeria.

The primary objective of this study is to carry out an in-depth analysis of family business financing requirements and the form and type of financing available in Nigeria. In order to attain the set research objectives, both the theoretical and empirical approaches will be employed. This will assist to develop a deep understanding of the research phenomena in the Nigeria context. Primary data would be collected from Nigeria by means of a quantitative survey and qualitative interviews.

This research will contribute to the expanding body of knowledge as well as provide professionals, academics and policymakers with an insight of the challenges family businesses are facing.





Lynn Richards, Research Student Doctorate in Education (Educational Enquiry) Faculty of Education, Health & Wellbeing L.Richards6@wlv.ac.uk

Working responsibly within Narrative Inquiry

This presentation offers details of a research study I undertook within a narrative inquiry methodological approach. Working in a person-centred way, as a means to foreground respectful working with participants, I was keen to privilege the voices of my research 'narrators' who storied their lived experiences as university students in relation to issues of engagement and belonging.

Narrative inquiry seeks to diminish the power imbalance between researcher and narrator; the exchange itself becomes the site of co-constructed understanding. In order to avoid the 'hit and run' (Zeichner, 1995) aspects that can be associated with educational research, I offered a participatory element to my study by means of using creative strategies; I employed elements of both photoand metaphor-elicitation methods to facilitate ways of talking about issues that may not readily find expression within everyday conversation.

The literature on non-traditional students within Higher Education presents a negative-framing of the student. My research study has afforded the chance for a small number of First Generation students, those who are the first in their immediate family to attend university, to author their own stories in relation to their lived experience and to legitimate such experience as a source of knowing. As such, the study has sought to privilege the voices of its narrators as a way to actively generate knowledge to contribute to the ongoing academic conversation in regard to student engagement and belonging; that is, to include students in knowledge generation for both epistemological and political reasons, "especially when it is about them" (Brydon-Miller et al., 2011, p.389).







Edda Nicolson, Research Student Postgraduate research in History Faculty of Social Sciences <u>E.Nicolson@wlv.ac.uk</u>

Looking Back To See What Could Come Next: How Our Collective Memories Should Shape Our Future World Of Work

Our world of work now encompasses striking new technological developments that mean driverless taxis and robotic doctors could be a part of our workforce in the near future. What could that mean for our workforce? The anxiety of widespread job losses is a spectre that looms over any discussion of breakthroughs in engineering and science that would mean increased productivity. This anxiety is not new, and is in fact something that is ever present in the collective memory of the British working class, and particularly those within the trade union movement from the 19th and early 20th centuries.

In this presentation, I will imagine two future worlds. In both worlds, we are surrounded by advanced technological innovation, but the crucial difference will be that in one world our future has been reached with simultaneous progressive social advancement, coupled with effective and accessible education and training, to mitigate the negative economic effects of increasing technology in the workplace. In contrast, the other world has the same level of technological advancement, but has lacked concern for the social impact and therefore has an ever-widening gap between the rich and the poor.

As a society, we are at a crossroads, and our decisions will determine which of the two worlds our children will inhabit. I argue that it is not enough to have a collective memory of how we tackled our first industrial leap forward in the 19th and 20th centuries, but that we must convert these memories into a living, breathing immortal legacy that actively shapes and defines our future. I will show, through historical records of efforts by trade unions to effectively educate and re-train their members, what a future could look like in which people and machines work together to create a wealth shared by our global community.







Raja Muhammad Ubaid Ullah, Research Student Postgraduate research in Computing and Mathematics Faculty of Science & Engineering <u>r.m.ullah@wlv.ac.uk</u>

Cloud Computing Adoption in Enterprise: Challenges and Benefits

Loss of the business and downturn of economics are part of almost all types of the business activities. There are also new concepts and technologies evolved and entrepreneurs need to keep update accordingly. Therefore, business people have to concentrate on keep exploring new ways to cut down expenses without compromising on the quality. One of the options is to go for latest technologies. Taking into consideration these problems, the entrepreneurs always choose right technology to minimise losses, increase efficiency and maximise their profit.

In order to help out the entrepreneurs, the IT industries have developed platforms for the businesses to use shared resources and online applications through the cloud computing. The significant role played by the cloud computing in providing solution of the problems faced by the business enterprises to increase the business growth and help them to stay alive in competitive environment. The cloud computing also brings efficiency in managing the business resources and make improvements in the traditional business practices. It also facilitates the enterprises to avoid unnecessary expenses of procedural and administrative nature, hardware and software costs.

Apart from advantages of the cloud computing have certain drawbacks also. The main issue is the security in the cloud computing considering the attacks on cloud too.

The primary objective of this presentation is to highlight the benefits, challenges in adopting cloud computing and utilizing services offered by cloud computing. Recommendations have also been made to ease the adoption process and how to address security issues.







Panagiotis Vitalis, Research Student Postgraduate research in Sports and Recreation Faculty of Education, Health & Wellbeing <u>P.Vitalis@wlv.ac.uk</u>

Physical Activity in Rheumatic Diseases: A Qualitative Study

Patients with rheumatic diseases (RDs), especially rheumatoid arthritis (RA), report low cardiorespiratory fitness levels, placing them at an increased risk of premature mortality and cardiovascular disease.

The aims of the present study were: a) to evaluate if patients with RDs (RA, ankylosing spondylitis, systemic lupus erythematosus, osteoarthritis, psoriatic arthritis, systemic sclerosis, fibromyalgia, enteropathic arthritis-Crohn's disease, Sjögren's syndrome, Raynaud's disease) were aware of the physical activity (PA) benefits, and b) to examine their preferences in terms of PA mode and principles (i.e. intensity, duration, frequency).

We designed a questionnaire consisted of dichotomous, open-ended and multiple-choice questions. Patients participated by filling in the questionnaire a) online, or b) through phone calls. Content analysis approach was performed for data analysis.

197 patients participated, from whom 93 had RA (47.3% of the sample, age=54.9±14.5) and 104 (52.7% of the sample, age=50.2±13.9) were diagnosed with other RDs. Subjective beliefs about the PA benefits, concerned three main themes: a) functional ability, b) mental health and c) overall health. Swimming was revealed as the most frequent PA mode (38.1%). Regarding the PA principals, patients reported that they preferred moderate intensity (41.7%), a duration of "about an hour" (49.3%), a frequency of "2-3 times per week" (45.2%) and a blended intervention consisted of group-based, individualised and supervised programmes (29.4%). The questionnaire was judged by the patients to be very or fairly understandable in almost all cases (99.5%).

To the best of our knowledge, this study is the first of its kind. In planning successful PA regimes in RDs, more qualitative studies are required to address patients' PA needs and preferences and help them adhere to a more physically active lifestyle.







Weiju Zhou, Research Student Postgraduate research in Health Faculty of Education, Health & Wellbeing <u>W.Zhou@wlv.ac.uk</u>

Socioeconomic Status and Risk of Stroke in Older People: the Anhui cohort study in China

Little is known about the impact of socioeconomic status (SES) in older age on incident stroke and fewer studies simultaneously examined the impact of various measurements of SES. This study aims to investigate the impacts of using different measurements of SES in older adults in urban and rural communities of China and to identify which SES indicator is most predictive of incident stroke.

We examined data from the Anhui cohort of 2001-2011, consisting of 2,852 participants aged \geq 60 years who had no stroke at baseline and were followed up for 10 years with three surveys using a standard interview.

There were 211 cases of incident stroke at follow up. Participants living in rural versus urban areas had an increased incidence of stroke; the hazards ratio (HR) was 2.26 (95% CI 1.56-3.28) after adjustment for age, sex, lifestyles, social network/support, activities of daily living, psychosocial impact, and cardiovascular risk factors. The HR of incident stroke was also increased with low levels of education (1.92, 1.36-2.71), occupation (1.80, 1.29-2.49) and low income (1.96, 1.39-2.77) compared to their high levels. The rural-urban disparities in stroke risk remained after further adjustment for education, occupation and income respectively, but after adjustment for the rural-urban disparity those HRs in the low levels of education, occupation and income were substantially reduced and became insignificant.

Inequalities in incident stroke in China were mainly from rural living. Improvements in healthcare access and stroke prevention education in rural China could have a prominent impact in reducing stroke burden.



University of Wolverhampton Lecture Series





Speaker: Danielle Brown, MBE Date & Time: 12th June 2018, 5-7pm Location: Chancellor's Hall, Wulfruna Building, City Campus To book visit: <u>https://www.eventbrite.co.uk/e/university-of-</u> wolverhampton-lecture-by-danielle-brown-mbe-tickets-43246378081

Success is a choice

Danielle will explore the relationship between success and our mindset. Coming from a world where one tiny mistake is the difference between winning and failing, Danielle will challenge the way you think and demonstrate how to harness the powers of vision and self-belief to pursue excellence.

Biography

Double Paralympic gold medallist Danielle Brown has proven that setbacks do not have to be a barrier to success.

Taking up archery on her fifteenth birthday was the first step on a journey that saw her power to Paralympic glory. Danielle spent her entire international career as world number 1, winning gold in two consecutive Paralympic Games and three World Championships. She also accomplished something that very few disabled athletes manage when she transitioned onto the able-bodied team.

Danielle now works as a professional speaker, mentor and coach, using cutting edge research and her experiences to help others strive for excellence, develop skills for success and achieve big goals. <u>www.daniellebrown.co.uk/</u>







The University's Annual Researchers' Week takes place throughout week commencing 11th June, 2018. The week opens with ARC2018 (11th and 12th June) and a lecture by Danielle Brown MBE followed by a full programme of research training events. Use the links below or visit <u>www.wlv.ac.uk/doctoralcollege</u> for more information and to book your place on individual sessions.

The week aims to provide postgraduate researchers with the opportunity to develop their research skills and knowledge development, as well as their networks with other researchers and their community of practice. Whether you book for the whole week or just a couple of days, we look forward to seeing you there. See below for the full schedule:

Wednesday 13th June , 2018 - Day 3 focuses on support for researchers' in disseminating their research and culminates with an opportunity to book a place on an early evening Masterclass by Professor Sir Alan Tuckett. Click on titles below to go to booking pages.

- <u>10:00 Researchers' Week: Disseminating Your Research</u>
- <u>13:00 Researchers' Week: Writing and the REF</u>
- <u>15:00 Researchers' Week: Meet the Editors and Reviewers</u>
- <u>17:00 A Doctoral College Masterclass by Prof Sir Alan Tuckett -'How to influence others with your research'</u>

Thursday 14th June, 2018 - Day 4 is given over to the University's Project Support Office (PSO) who will deliver a number of sessions on support to engage in funded research projects.

- <u>10:00 Researchers' Week: Funding Information and Research Officers</u>
- <u>10:40 Researchers' Week: Project Bidding and Development</u>
- <u>11:30 Researchers' Week: Finance Session</u>
- <u>12:15 Researchers' Week: Economic Partnerships and Growth Support Team</u>
- <u>14:00 Researchers' Week: Three Minutes to Success Workshop</u>

Friday 15th June, 2018 - The week ends with the focus on practical advice sessions for doctoral students.

- <u>10:00 Researchers' Week: You and your thesis</u>
- <u>13:00 Researchers' Week: You and your supervisors</u>
- <u>15:00 Researchers' Week: You and your viva voce</u>

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