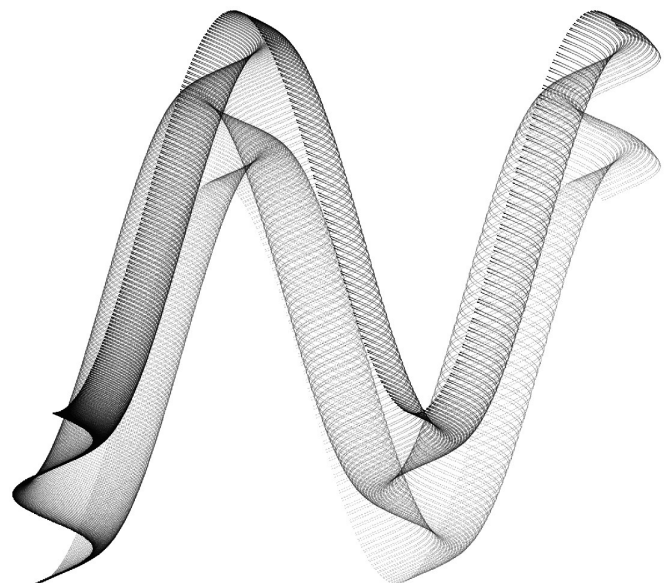
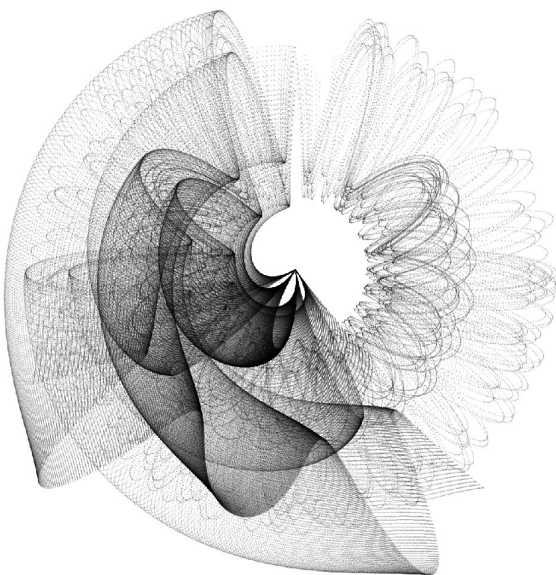
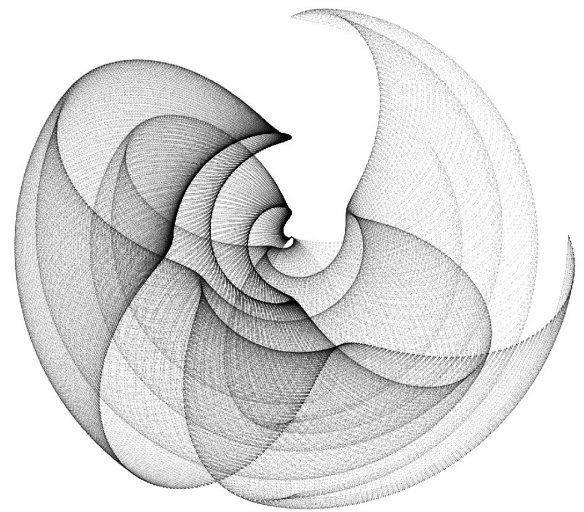
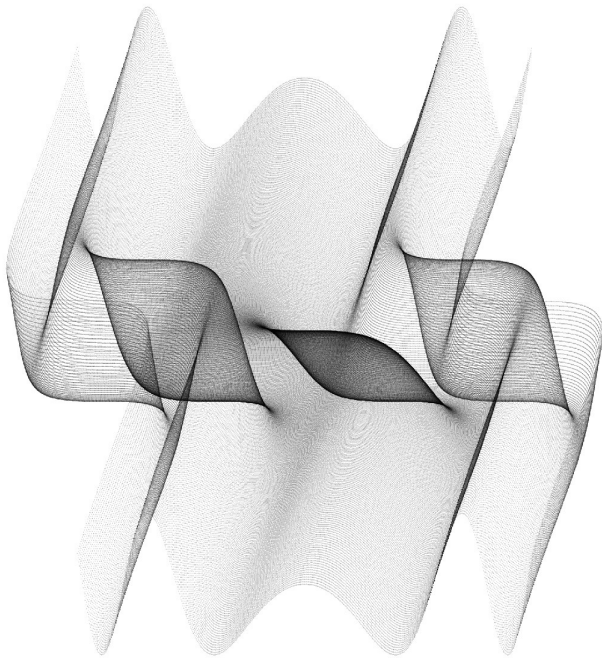


# RESEARCH

Summer/Autumn 2022

@worc



### Cover image: 'Computerised Art' by Dr Mathieu Di Miceli, School of Science & the Environment

"The image was created with the open access software R Studio ([R Core Team, 2013](#)). Here, the process is adapted from Antonio Sanchez Chinchon ([Chinchón, 2022](#)) and involves three sequential steps: (i) picking a random number ("seed"), followed by determining the mathematical coordinates of the graphical point on the (ii) x and (iii) y axis. This allocates a point according to its x and y coordinates. Different images can be acquired depending on the chosen equations. This image presents 4 successful attempts with the following equations:

Top left: seed = 8936 ;  $x = 2x_i - \sin(y_i)$  ;  $y = (y_i)^3 - \sin(x_i^2)$

Top right: seed = 388 ;  $x = 2x_i^2 + \sin(y_i^2)$  ;  $y = (y_i)^2 - 5 \cos(x_i^2)$

Bottom left: seed = 200 ;  $x = 2x_i + \sin(y_i^2)$  ;  $y = y_i - 2 - \sin(x_i^2)$

Bottom right: seed = 662 ;  $x = 2x_i^2 + \sin(y_i^2)$  ;  $y = (y_i)^2 - 5 \cos(x_i^2)$

These equations can be used to reproduce different biological systems in a computer (*in silico*), such as neural networks.

Chinchón, A.S. (2022) 'Fronkonstin'. Available at: <https://fronkonstin.com/> (Accessed: 7 April 2022).

R Core Team (2013) 'R: A language and environment for statistical computing. R Foundation for Statistical Computing. Vienna, Austria'. Available at: <http://www.R-project.org/>."



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produced by colleagues in the Research School

# INTRODUCTION

I am delighted to be writing the introduction for the first issue of Research@worc, a celebration of the fascinating and valuable work of our researchers. This issue focuses on our research and knowledge exchange over the Summer and Autumn of 2022 and it is anticipated that this will become a regular series, with two issues per year.

Research@worc is aimed at our current staff and students but also at external audiences, future staff and students, collaborators, partners and funders and seeks to present these audiences with a picture of the wide range of research and knowledge exchange going on at the University, how this work is being funded, its delivery and dissemination and its impact. I emphasise that this is a snapshot and there are no doubt many other excellent stories not featured here. I am particularly pleased to see the disciplinary diversity reflected here with research and impact reflect across health and science, social sciences, arts and humanities.

This first issue is launched shortly after Graduation 2022 and a primary focus is naturally our doctoral graduates, of which there 19 in total this year. We feature stories on nine of our graduates which highlight the challenges they have had to overcome to reach their goal, not least the challenge of undertaking their doctorate in the midst of global pandemic. I am delighted in reading these stories to hear what our students are doing now with many continuing or progressing their academic or research careers whilst others are carrying their research back into their professional practice.

We welcome feedback on this issue and ideas and stories for future issues. Please email Esther Dobson, [e.dobson@worc.ac.uk](mailto:e.dobson@worc.ac.uk), who has responsibility for Research@worc and had done a fine job in pulling this first issue together.

**Dr John-Paul Wilson**  
Deputy Pro Vice Chancellor Research



## BBC RADIO 3'S *FREE THINKING*

On 27 October, Dr Lucy Arnold, Senior Lecturer in English Literature, featured on a discussion panel to mark 30 years since the broadcast of Ghostwatch; a documentary that centred on a fake 'investigation' of poltergeist activity.

## DOCTORAL STUDENTSHIPS

The University is fully funding 13 new doctoral studentships for entry in 2023. The studentships cover diverse topics ranging from "Shakespeare as resistance in 21st century Ukraine" to Challenges and Opportunities of Growing up in Military Families" to "Drones, Development and Disaster Risk Reduction in Nepal". Awarded through open competition, the University was particularly keen to support studentships which involved collaboration inside and outside of academia. Partners on the projects include: the Perry Foundation; the Bumblebee Conservation Trust; the Ministry of Defence; Housing 21; University of Lviv, Ukraine.

## HR EXCELLENCE IN RESEARCH AWARD

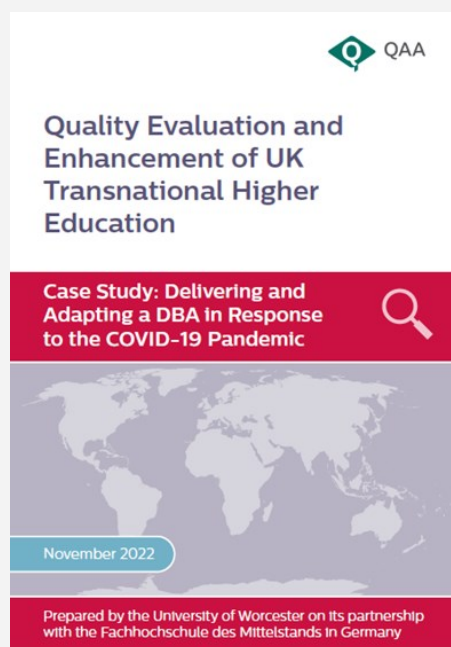
In June, the [University](#) retained a European-wide kitemark recognising its work to develop and enhance the working environment and career development opportunities for its researchers.



HR EXCELLENCE IN RESEARCH

## COLLABORATIVE DBA RECOGNISED

In November, a case study for the Quality Assurance Agency for Higher Education (QAA) on 'delivering and adapting a DBA in Response to the COVID-19 Pandemic', was prepared by Dr Vessela Warren and Prof. Lynn Nichol on Worcester Business School's partnership with the Fachhochschule des Mittelstands in Germany. This was part of the Quality Evaluation and Enhancement of UK Transnational Higher Education initiative.



## CHILDREN'S HEALTH AND WELLBEING

Dr Pamela Murray-Hopkin of Worcester Business School is co-author of a series of project reports commissioned by the Children's Alliance examining the physical and mental health and wellbeing of children and young people in the UK: <https://hildrensalliance.org.uk/working-group-reports/>. The reports highlight that the next generation of UK adults will be the least healthy in living memory and set out a series of recommendations as to how this might be addressed.



## BRITISH ACADEMY EARLY CAREER RESEARCHER NETWORK

The Academy in partnership with the Wolfson Foundation is piloting for two years an Early Career Researcher Network for Early Career Researchers in the humanities and social sciences.

The Academy aims for the network to be a researcher-led and an inclusive humanities and social sciences network, accessible to all researchers regardless of their funding source or background. This will ultimately be a UK-wide network tailored to researchers at postdoctoral level in the humanities and social sciences disciplines.

The network will be responsive to the needs and interests of the researchers and enable the British Academy to support a greater number of researchers in their career ambitions, through skills development, networking opportunities, workshops, and events.

Further details are available on the British Academy website:  
[thebritishacademy.ac.uk/early-career-researcher-network](https://thebritishacademy.ac.uk/early-career-researcher-network)

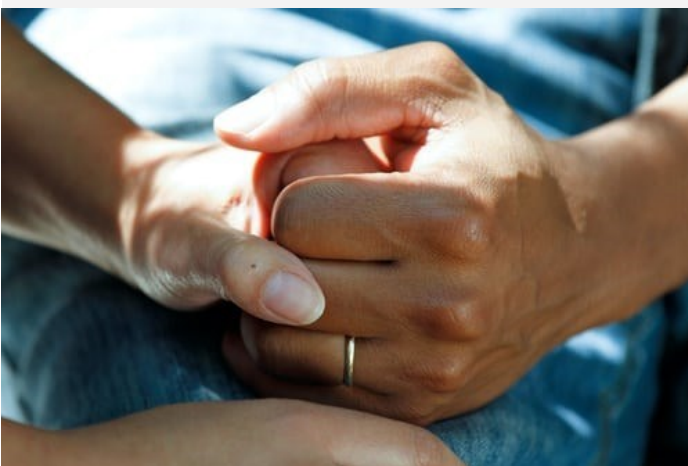
The BA ECR Network will be running a session at the University of Worcester on the 15th February 2023. More information will be circulated in due course.

## 'DESIGNING FOR EVERYONE' KIT

The University of Worcester's Association for Dementia Studies (ADS) has authored a pioneering toolkit (commissioned by primary care building specialists Assura) which will help GPs adapt their buildings and their physical environment for people with disabilities and conditions, such as dementia, neurodiversity and anxiety.

Download the Designing for Everyone guide, summary assessment tool, and full assessment tool at:

[dimensions-uk.org/designingforeveryone](https://dimensions-uk.org/designingforeveryone)



## STAFF RESEARCHER DEVELOPMENT PROGRAMME

A programme of workshops has been put together for the staff Researcher Development Programme. All sessions are available to book onto on the staff development portal.

The Staff Researcher Development Programme (RDP) is designed to support researchers at all career stages and to provide a framework to identify and work towards your evolving research aspirations and goals.

The programme is organised around seven 'clusters':

- Career Development
- Funding and Delivering Your Project
- Impact and Engagement
- Publishing Your Research
- Research Integrity
- Research Leadership
- Research Supervisor Development Programme

More information is available on the '[Researcher Development Programme-Staff](#)' Blackboard pages.

Email: [researcherdevelopment@worc.ac.uk](mailto:researcherdevelopment@worc.ac.uk)

## LEVERAGING TECHNOLOGY FOR THE ASSESSMENT AND MONITORING OF FRAGILE INFANTS WITH COMPLEX CONGENITAL HEART DISEASE IN THE COMMUNITY

NIHR - I4I FAST

### Co-Investigators

**Dr Kerry Gaskin**

Associate Professor of Nursing

Three Counties School of Nursing and Midwifery

**Dr Chris Bowers**

Head of Computing Department & Principal Lecturer in Computing

Worcester Business School

**Value** £34,974

## WOMEN'S IN LOCAL GOVERNMENT: A HISTORICAL PERSPECTIVE

*British Academy: Small Research Grants*

### Principal Investigator

**Dr Anna Muggeridge**

Lecturer in History

School of Humanities

**Value** £7,324

## AI TO IMPROVE SAFE MEDICATION DELIVERY TO PATIENTS: A CLOUD-BASED VIRTUAL REALITY INITIATIVE TO UNBLOCK PHARMACOLOGY TRAINING

*Innovate UK*

### Co-Investigator

**James Pearson-Jenkins**

Principal Lecturer for Skills and Simulation Based Education

Three Counties Medical School / School of Nursing and Midwifery

VREvo Ltd, Tetra Signum (South Korea), The University of Manchester and University of Worcester have received funding to develop an innovative medical education platform with artificial intelligence (AI) supported immersive VR simulations using advanced voice recognition techniques to create patient avatars for different clinical scenarios in medical pharmacology.

**Value** £24,130

## STEM AMBASSADOR HUB

*STEM LEARNING LTD*

### Project Lead

**Alison Winson**

Head of Department, Secondary & Post-Compulsory Education

School of Education

**Value** £154,319

## EVALUATION OF TYRE TAGGING

*West Mercia Police/ Telford & Wrekin Council*

### Principal Investigator

**Dr Rosie Erol**

Research Fellow - Department of Violence Prevention, Trauma and Criminology,

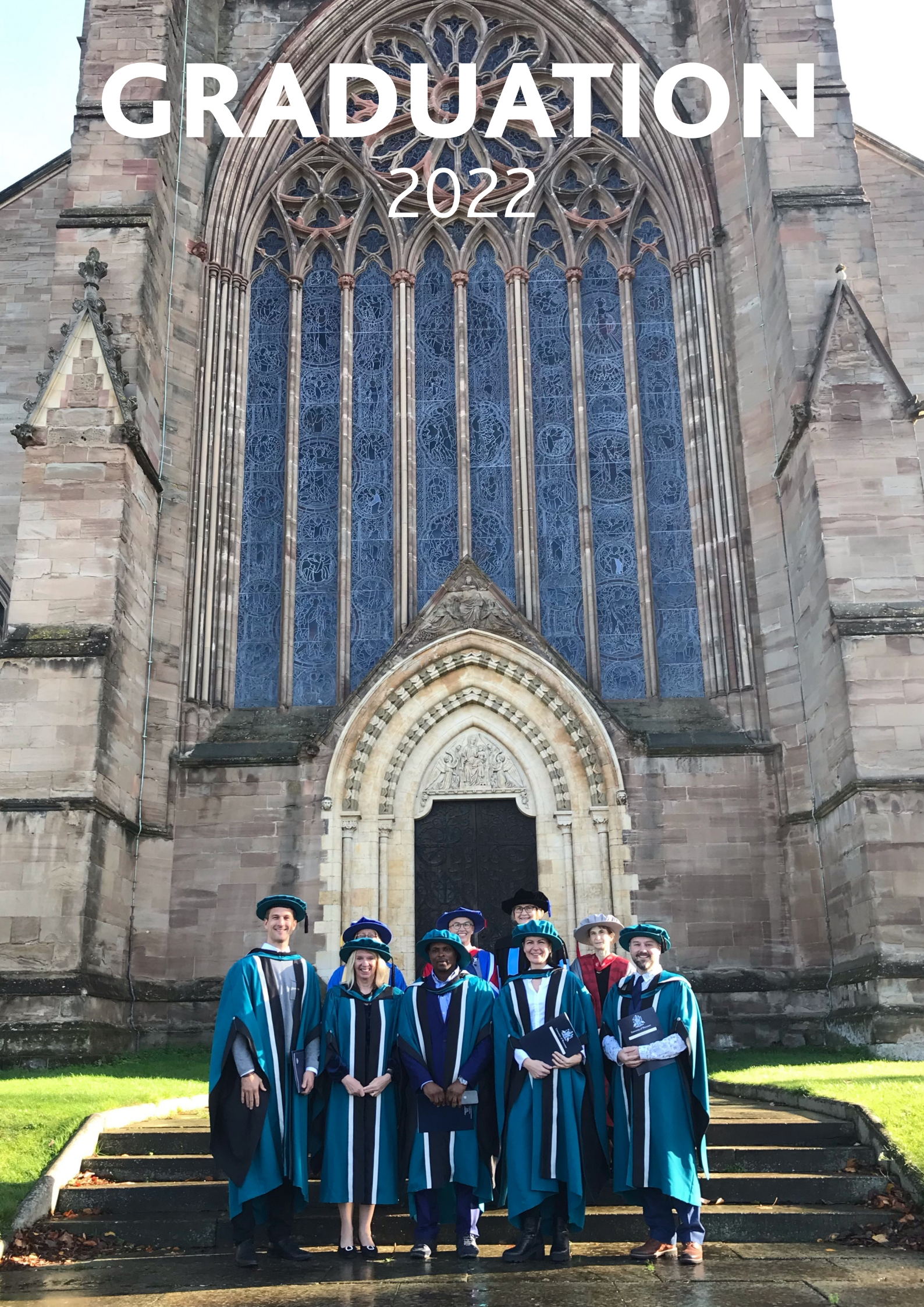
School of Psychology

**Value** £7,666



# GRADUATION

2022







**Dr Jo Johnson** *she/her*  
PhD

(Studentship co-funded with  
UW and Midlands Partnership  
NHS Foundation Trust)

*“Understanding perinatal  
mental healthcare referral  
decisions among midwives and  
health visitors”*

**Supervisory Team**

Prof. Lisa Jones (DoS)

Dr Lucy Hope

Prof. Eleanor Bradley

“I was lucky to get a studentship to study for a full-time PhD at Worcester and feel very grateful for the opportunity. Worcester is a very friendly place to study. There are excellent support services available for students if needed. I was extremely fortunate to have had a very knowledgeable and experienced supervisory team who supported and guided me throughout my PhD and helped me produce a thesis I am really proud of.

I found doing a PhD challenging, relentless and overwhelming at times. It involved an insane amount of work and there were many times that I felt like giving up! Doing a PhD later in life brings its own challenges; I had a family and home to run, children to look out for (even the grown-up ones!), personal and family illnesses, coping with the menopause and an aging mother... the list goes on. However, I persevered and I’m so glad I did. The sense of achievement I feel at completing my PhD is unparalleled. I have learnt so many new skills that I wouldn’t have had the opportunity to learn if I hadn’t done a PhD. It was hard work but now it’s done, I can say it was worth all the effort.

In the early days of the pandemic I returned to work for the NHS as a nurse on covid wards in various

local hospitals. Then latterly worked as a contact tracer for Public Health England whilst completing my PhD. Luckily, I had collected all my data by the time the pandemic hit as that would have undoubtedly added more pressure!

During the final write-up stage I returned to work as a Health Visitor and combined clinical practice with my studies.

I’m really proud to have won the ‘Best academic poster presentation’ at the CPHVA annual conference in

Harrogate in 2019 which was judged by

experienced and notable peers in my profession. I gave numerous

presentations at conferences during my PhD and was lucky

enough to be selected to present my research at the

Maternity and Midwifery

Festival online conference in

2020.”

**What are  
you doing now?**

I am working as a Health Visitor in Bromsgrove and currently in the process of writing an article about my research with my supervisory team



L-R: Dr Jo Johnson, and Prof. Lisa Jones



**Dr Alice Mockford**

PhD

(full time funded studentship)

“The use of habitat interventions to enhance natural pest regulation services in Spanish orange orchards“

Supervisory Team

Dr Duncan Westbury (DoS)

Dr Kate Ashbrook

Prof. Alberto Urbaneja

“The project aimed to investigate the use of wildflower strips and their management to enhance pest regulation services by naturally occurring beneficial insects (called natural enemies) to support sustainable production of oranges, and was co-funded by the University of Worcester, Waitrose and Partners, and Primafruit Ltd.. The field trials took place in commercial orange orchards in Huelva, southwest Spain, over a three-year period. We designed a novel wildflower seed mix with native and perennial plant species which we sowed in the alleyways between the rows of orange trees and aimed to provide resources for natural enemies, increase their abundance and increase the delivery of pest regulation services to the orange crop. We also tested the management of the wildflower strips by cutting, to determine whether an active cutting treatment could increase the movement of natural enemies onto the orange tree canopies at key times of the year when pest regulation services are critical for the control of a key pest, California Red Scale. The standard management wildflower strips were left uncut throughout the growing season. To determine their potential, the two wildflower treatments were compared to the standard farm practice, which was to cut the naturally occurring alleyway vegetation four to five times annually.

The wildflower strips increased the number of plant species in the orchard alleyways compared to the standard farm practice and supported a distinct plant community. The wildflower strips enhanced the availability of a key resource for natural enemies, sugars such as nectar and honeydew, which can increase the fitness of natural enemies and result in enhance pest regulation services. An important group of natural enemies, called parasitoids, were more frequently sugar-fed in the orchard plots sown with wildflower strips under the standard management treatment (uncut). The standard management treatment was associated with increased abundance of primary parasitoids and some important predators, such as ladybirds

Coccinellidae). This translated to enhanced pest regulation services on the crop at key times in the year (June and July). Contrary to our expectations, the active management treatment did not enhance movement of natural enemies on to the crop and pest regulation services associated with this treatment were reduced, likely because the cutting treatment removed key resources required by natural enemies and during the arid summer months the plant community and associated insects could not recover.

I have been fortunate to present my work at several international conferences, presenting a poster at the European Congress of Entomology in Naples, Italy, 2018 and an oral presentation at the postponed International Congress of Entomology in Helsinki, Finland, 2022. I was awarded a grant from the Royal Entomological Society, UK, to attend an international conference held by the IOBC; Integrated Control in Citrus Fruit Crops, Nafplio, Greece, 2022.

During my PhD, I have won two prizes for the best oral presentation given, at the Waitrose Science Day at Warwick, UK, 2019, and at the IOBC Integrated Control in Citrus Fruit Crops, 2022. We have

recently published the first research article from my PhD, 'Structural heterogeneity of wildflower strips enhances fructose feeding in parasitoids', in the peer reviewed journal Agriculture Ecosystems and Environment.”

**What are you doing now?**

In June, I joined the department of Landscape Ecology at the University of Kiel, Germany, as a postdoctoral researcher.



L-R: Dr Kate Ashbrook, Dr Alice Mockford, and Dr Duncan Westbury





**Dr Emma Tickle**

PhD

(full time funded  
studentship)

“Borderline personality  
disorder among individuals  
with bipolar disorder:  
Prevalence, correlates, and  
experiences of the comorbid  
diagnosis “

Supervisory Team

Prof. Lisa Jones (DoS)

Prof. Eleanor Bradley

Dr Kath Gordon-Smith

“As I came to the end of my undergraduate degree, I was uncertain about what I wanted to do next. I remember talking to one of my lecturers and saying I just wanted to keep doing this, researching and learning. He pointed me in the direction of the Vacation Research Assistant scheme. I spent the summer after graduation working with the Bipolar Disorder Research Network here at the University, analysing public reactions to a soap’s portrayal of bipolar disorder. A little less than a year later, I successfully applied for a doctoral studentship with the same team.

My research explored the diagnosis of borderline personality disorder in individuals with bipolar disorder. Bipolar disorder is a severe mood disorder characterised by highs and, normally, lows of mood. Borderline personality disorder is a personality disorder than can co-occur with bipolar disorder, and is associated with an unstable sense of self, difficulties in relationships and impulsivity. My research focused on the prevalence of a diagnosis of borderline personality disorder in people with bipolar disorder, and the features associated with receiving this diagnosis. It was also the first study to include a qualitative exploration of this experience, and I was lucky enough to talk to fifteen people about their experiences of living with both diagnoses.

What my research highlighted more than anything was just how confusing it is to have a diagnosis of both borderline personality disorder and bipolar disorder. One in six of my participants with bipolar disorder also had a diagnosis of borderline personality disorder, and people with both disorders were more likely to experience severe symptoms. Most importantly, my findings stressed how vital treatment and healthcare experiences are in people with both disorders, and the importance of developing positive, honest relationships with clinicians.

A lot of things happened during my programme! I got married, moved house three times, got a puppy (who is now about to turn five!) and dealt with family illness – and all that was before the pandemic. Once lockdown hit, I had to adapt to working from home full-time and losing the support system I had developed in my little office in St Johns. That was probably the hardest part. Being a PhD student can be pretty isolating, and the pandemic really heightened that. All meetings were online, conferences were online – even recently, my viva was online. Doing a PhD during lockdown was a strange experience and I don’t think I’ll ever forget it.

I’ve had a lot of positives during my PhD as well. I’ve attended some incredible conferences, and won a Best Poster Award at an international conference. I think, for me, the most incredible part was travelling the country talking to people about their experiences. I remain extremely thankful and humbled by just how much

people were willing to tell a novice researcher just starting out on her journey. My time here – as an undergraduate, a Vacation Research Assistant, and a PhD student – has been incredible. There have been ups and downs, but the university has always been supportive. I have met and worked with some incredible people, and I feel extremely fortunate to be continuing my journey here at the university as an associate lecturer.”

**What are  
you doing now?**

This year, I’m working on writing up my thesis for publication along with my supervisors, and I have also been hired as an associate lecturer at the University of Worcester. The plan, hopefully, is to stay in academia, researching and teaching.







**Dr Claire McLoone-Richards** *she/her*  
PhD

“Doing Advocacy and Negotiating Power in Child Protection Practice within Early Childhood Education and Care “

**Supervisory Team**

Dr Sean Bracken (DoS)

“To embark on a PhD is a truly exciting and rewarding experience, it can be both inspiring and quite challenging, in my case it was all these things, and it was quite a long journey which at times, tested my resolve and focus. However, it is tremendous to be finally graduating. I enjoyed my experiences as I was privileged to work with very encouraging and supportive colleagues at the University of Worcester. I completed my PhD by Publication in 2021, which is a less known pathway than the traditional PhD route. The most wonderful aspect of this experience was that I was publishing and becoming recognised as a worthy scholar within my research and academic community. I was very fortunate to have started my research journey as an Early Career Researcher within the School of Education at the University of Worcester way back in 2008 and subsequently, within the Department of Violence Prevention based in the School of Psychology. My career path to date was by no means “straightforward”, I started my professional career in mental health nursing in Donegal in the early 1980s and came to the UK during a sad time of great recession when many young people left Ireland for better opportunities away from home. To say the least my career and my educational development flourished, over the last few decades I have managed a drug and alcohol service in the community, co-ordinated a multi-professional forum to

address domestic violence, studied law and qualified as a Barrister in 2006, and became very involved in local and national service development and research on issues of child protection and violence prevention. These latter experiences really captured my interest and concerns about the practices of professional advocacy in child protection and interventions to safeguard victims of domestic violence. My interests inspired the specific focus of my PhD which argued for more robust provision for Early Childhood Educator students in developing their professional advocacy skills, to support the rights of children and protect their welfare. I developed an original concept model known as the Child Advocacy Reflective Framework

(CARF) which can contribute to the education and training of developing advocacy skills in protecting children to a wide range of child protection professionals.”

**What are you doing now?**

I continue to work as a senior lecturer at the University of Worcester and I lead the MA in Understanding Domestic and Sexual and Violence. I also continue to research in the field of violence prevention and in understanding the impact of violence and abuse. The work is challenging at times, but I am hopeful that my teaching and research will continue to positively influence and inform our future graduates and practitioners who work with vulnerable children and their families in our communities.





**Dr Ruel Welch**

Doctorate in Business Administration

*“Mobile learning for just-in-time knowledge acquisition at the Science Museum Group”*

**Supervisory Team**

Dr Temitope Alade (DoS)  
Prof. Lynn Nichol

“My main research interest was located in Technology Enhanced Learning; specifically, the use of a mobile learning intervention tool to help manage ICT related incidents. It was conducted as a quantitative methods study that explored factors contributing to technological adoption, specifically mobile learning.

The key findings from my study indicate that the Unified Theory of Acceptance and Use of Technology (UTAUT) constructs, performance expectancy, effort expectancy, social influence and facilitating conditions are all significant determinants of behavioral intention to use mLearning. A newly proposed construct, self-directed learning was not a significant determinant of behaviour intentions among Science Museum Group staff. Further examination found age and gender moderate the relationship between the UTAUT constructs.

There are many things I am proud of that happened during the DBA. The first is that I am an author of 5 peer reviewed research papers that have been cited. I have also been invited to be a speaker at a conference at a Bulgarian University which I attended and got positive feedback. The factor that makes me

particularly proud of this achievement is that I struggled early on in the course where part of a module involved giving a presentation. This demonstrates the growth I have undergone as a result of doing the DBA. Another achievement that I am proud of is that one of my research papers has become a chapter in a book on Mobile learning.

I have been blessed to find such a quality experience for my doctoral journey at the University of Worcester. The DBA aligned perfectly with my career aspirations and the cost was less prohibitive than many other options I considered. The rigor of the program was challenging but achievable and gave me confidence in my own personal and professional growth. This was because throughout the program I was

made to feel valued and supported. The lecturers and my supervisory team were unbelievably knowledgeable and demonstrated that they were invested in my success. This journey has led to many doors being opened and some fantastic career opportunities. I am eternally thankful for the relationships I built and the people I met on this course. “

**What are you doing now?**

I currently work as Head of technical training for a Software company that provide software and hardware for the prison sector







**Dr Becky Oatley**

PhD

(full time funded studentship)

*"From washing boots to motor racing champions: Exploring women's experiences of sport reminiscence for people affected by dementia "*

**Supervisory Team**

Dr Simon Evans (DoS)

Dr Shirley Evans

Dr Geoff Kohe

"In 2017, I was a member of the inaugural Severn Stars netball team in the Netball Superleague. At the time, I was living in Cardiff, commuting to Worcester for training and matches, and working for the Alzheimer's Society. I saw a studentship being advertised looking at sport reminiscence and dementia and couldn't believe my luck. It felt like what I wanted to do, and where I wanted to be. I was very fortunate to be successful at interview.

My project talked to women living with dementia and those who were family carers of someone living with dementia about their experiences and memories of sport. This involved talking to women at sport reminiscence groups hosted by various professional sports clubs, as well as interviewing women in their own homes.

My study was the first to consider women's experiences of sport reminiscence. All previous research has focussed upon men and traditional sports, such as football. Yet, some women have meaningful connections to sport that can challenge gender and disability-based stereotypes of what it means to be a woman affected by dementia. The topic of sport could offer opportunity for women to uphold and celebrate individual

and shared identities, and uphold a positive sense of identity that can be of great value in the context of living with dementia.

Being part of the Association for Dementia Studies has been a wonderful experience. Being able to combine my career in elite sport alongside study was

invaluable and it has been exciting to develop opportunities between my own dementia research and the wider university commitment to inclusive sport."

**What are you doing now?**

I am working as a research associate at the Association for Dementia Studies working on projects including looking at Extra Care Housing, physical activity, and Meeting Centres. I have also been working in practice to support people living with dementia in Worcestershire to access services and take part in activities. Findings from my PhD have been incorporated into some of the teaching offered here at the University of Worcester.







**Dr Emma Smith**

PhD

(full time funded  
studentship)

*"Investigating recovery from  
problem substance use using  
digital Photovoice"*

**Supervisory Team**

Dr Melody Carter (DoS)

Dr Paul Hazell

Dr Elaine Walklet

"I originally learnt about the University of Worcester when searching for PhD studentships. The studentship offered by the University of Worcester was the research programme which most appealed to my research interests as it was one of the only fully funded qualitative research studentships I came across. I applied to the studentship and was fortunate enough to receive the award.

My study was looking at the experiences of individuals in recovery from problem substance use using a visual research method known as Photovoice. In a Photovoice study, cameras are given to participants, and they are asked to take pictures of their experiences. The photographs are then used as a catalyst for discussion during qualitative semi-structured interviews.

During this Photovoice study, participants reflected on aspects of substance use recovery they found particularly challenging (such as feeling lonely and isolated) while also reflecting upon factors in their lives which were important in helping them to sustain their engagement with recovery services (such as meaningful social connections with others).

I was fortunate to publish three pieces so far from my PhD research (one peer reviewed) which I am very proud of and was made possible by the support of my wonderful supervision team.

Completing a PhD at the University of Worcester meant that I had a strong support structure in place (from both my supervision team and the research school) who were able to offer student centred support. As a result of this, I was able to focus my research on a topic of deep personal interest to me (problem substance use) which has allowed me to

pursue a research career  
in a field that I  
love."

**What are  
you doing now?**

I am currently a research associate at Kings College London on a research study looking at the experiences and available care pathways for pregnant women who use drugs.



L-R: Dr Melody Carter, Dr Emma Smith and Dr Paul Hazell



**Dr Ben Looker**

Doctor of Education

*“A grounded theory study exploring the intersection between pupil-teacher relationships and pupil alienation from the secondary classroom “*

**Supervisory Team**

Prof. Alison Kington (DoS)

Dr Karen Blackmore

Dr Ben Looker spent six years looking at challenging behaviour and how it manifested itself, developing a theory to resolve it, to complete his Doctor of Education (EdD). Having now ensured these learnings are in the curriculum to benefit the University’s Education students, Dr Looker, a Principal Lecturer in Secondary Science Education at the University, is looking forward to graduating.

“It’s a bit of a relief, but also it feels good to have done something I’ve wanted to do for a long time,” he said. “I’m proud of the theory. Hopefully as teachers graduate and take this learning into Worcester schools we’ll get an increasingly greater depth of knowledge about teacher-pupil relationships, so potentially it’s quite wide reaching.”

Dr Looker, taught at schools in the Birmingham area for 11 years, first as a science teacher and then an Assistant Headteacher at The Kingswinford Academy for three years. During that time, he provided mentorship for a number of the University’s students, which led him to take up a position as a lecturer alongside his EdD research.

“I was always interested in children who presented with bad behaviour, but behaved really well for some teachers,” he said. “I wanted to look at these children who were essentially alienated from their learning in some lessons - what made the relationship with teachers positive or negative.”

He collected data, interviewed a number of teachers and pupils and ran a teacher questionnaire.

He developed a theory for his observations, the Implicit Pupil-Teacher Social Contract. “It’s based upon trust and mutual respect,” said Dr Looker. “The pupils trust that the teachers will behave in a way that treats them with respect and vice versa.

“Say the pupil does something to break that if the teacher breaks the contract back, what that means is the relationship breaks down. The idea that came from this was that teachers need to try to repair the contract so effective teaching can continue.”

The theory is part of the PGCE Secondary curriculum at the University from this academic year. Dr Looker has trained staff and is also training staff at a few partnership schools.

Now he is looking at further research around teacher-pupil relationships and the social psychology of education.



L-R: Dr Karen Blackmore and Dr Ben Looker



**Dr Jane Perry**

Doctorate in Business Administration

*“An exploration of the student journey for the professional identity of the Physician Associate as a catalyst of change and innovation to support a future healthcare workforce “*

**Supervisory Team**

Dr Theresa Mitchell (DoS)  
Dr Robin Bell

“For 12 years, I worked as an academic at the University of Worcester and completed my Masters in Education during my early years. I commenced my doctorate shortly after my first senior management appointment in health. During this time, I led the development of the first MSc Physician Associate course and had the privilege of working with some excellent ambassadors and pioneers for this new role.

My reason for choosing this title for my doctoral study was because I could see the value in exploring new innovations and business models in health through having physician associates in the workforce to help bridge a workforce crisis and gap. In my own clinical career, I had been a very early nurse prescriber and I had had to be an ambassador for this new role which had not been easy at the time as it was not well understood. I could see that this would also be very similar for embedding a new healthcare professional into the workforce and felt it useful to research the student journey and professional identity for this new role to provide recommendations to support both stakeholders and students.

The findings of this study showed that PA students understood the need to be entrepreneurial ambassadors for developing acceptance and understanding of their

role. The public and current workforce need greater awareness and support for understanding the remit, scope and breadth of where a PA can best deliver care safely and relieve the burden from other practitioners. The study revealed that regulation and prescribing are fundamental requirements for their professional identity and this is an urgent need for acceptance in the workplace and that the role needs more research and equity in placement management to allow it to flourish.

This study took 6 years to complete and I am very grateful to my Director of Studies Dr Theresa Mitchel and my DBA supervisor, Dr Robin Bell for their incredible support throughout this time but especially during the pandemic and while juggling the role of Dean of a large school alongside my write up, I cannot thank them enough.

The University of Worcester always feels like I am coming home and has significantly shaped my career and provided a strong grounding for the future.”

**What are you doing now?**

Professor of Healthcare Leadership and Dean of Health, Sport and Bioscience at the University of East London





# CELEBRATING SUCCESS

## FORMER PHD STUDENT AWARDED PRESTIGIOUS FELLOWSHIP

A former PhD student from the University of Worcester has been awarded a prestigious fellowship, on the back of winning a national award for her doctoral thesis.



Dr Kathryn Spicksley won the British Educational Research Association (BERA) 2022 Doctoral Thesis award, which recognises academic excellence and rigour in research by a Doctoral student.

"I'm really thrilled," she said. "I never expected to win the BERA award, which was wonderful in itself. Now being awarded the Fellowship on top is just fantastic."

Kathryn was awarded a fully-funded University of Worcester PhD studentship, which she completed in 2021, before going on to work as a Research Fellow at the University of Wolverhampton.

Her PhD, supervised by Professor Alison Kington and Dr Karen Blackmore, was focused on teacher retention and was titled "New

Faces and Changing Places: Discourse, identity and early career primary teachers in post-2010 Multi-Academy Trusts".

"There has never been a focus on helping teachers to develop positive professional identities for themselves," she said. "People go in to teaching with strong altruistic motives, but they come up against lots of barriers which can leave them feeling very negative about the profession. I hope that my research will provide some practical insight in to how we can help teachers feel good about what they do and, in the long-term, aid retention."

Kathryn's research uses innovative methods to explore how teachers talk about their lives and worlds. "My postdoctoral fellowship will build on my previous research and allow me to work collaboratively with teachers and mentors in order to develop interventions," she said.

During her time at Worcester, Kathryn, who became a mother for the first-time part way through her PhD, was the student representative for PhD students, and was heavily involved in student life, publishing lots of articles.

"It was amazing doing my PhD at Worcester," she said. "I had a lot of great support and was encouraged to develop myself as a researcher."

Kathryn read Theology at Oxford University before completing a PGCE at Cambridge and then embarking on a career in teaching. After a few years she made the decision to apply for the University of Worcester's fully-funded PhD.

"I am really keen to stay in research now," she said. "I feel like there is so much more to learn."

# UNIVERSITY'S RESEARCH INTO MENTAL HEALTH SUPPORT FOR GYPSY, ROMA AND TRAVELLER COMMUNITIES

The University of Worcester has been awarded NHS funding by the NHS Race and Health Observatory to conduct research into the mental health needs of UK Gypsy, Roma and Traveller communities.



It will join forces with organisations working within these communities to lead an investigation to understand why inequalities might exist in mental healthcare provision and how they could be adapted to meet their needs.

Researchers aim to provide resources to ensure that good practice can be replicated around the country while offering wider practical recommendations for change, informed by the experiences of those people affected.

**Dr Peter Unwin**, Principal Lecturer in [Social Work](#) at the University of Worcester, is leading the research, which has been made possible thanks to a £100,000 grant from the NHS Race and Health Observatory, an independent body which works to identify and tackle ethnic inequalities in health and care. It follows on from his extensive research in this area already, having conducted a study into the experiences of disabled people from the Gypsy, Roma and Traveller communities in 2019/2020.

“My 2020 research into the missing voices of disability in these communities only scratched the surface with regard to mental health, taboo and stigma being cultural barriers that prevent such issues even being discussed,” he said. “Things are changing though, with champion boxer Tyson Fury, who has Irish traveller heritage, openly talking about mental health and BBC News recently running a feature on the suicide crisis among Gypsy, Roma and Traveller communities.

“The University of Worcester has a strong

commitment to social justice and a track record of working with marginalised groups, and this research opportunity from the NHS Race and Health observatory will break new ground with members of Gypsy, Roma and Traveller communities working at the core of the research team, alongside academics and practitioners.”

Historically, Gypsy, Roma and Traveller populations are underrepresented both in psychology research and in psychological therapies. Evidence shows these communities experience health inequalities along with a broader lack of understanding about their needs.

The University will co-ordinate the 10-month project, identifying focus groups in local areas where mental health initiatives are available. Dr Unwin will be visiting projects across the UK, some set up by Gypsies, Roma and Travellers themselves to try to meet their community’s mental health needs. These will be done alongside community led partners from the charity, the Gypsy and Traveller Empowerment Hertfordshire UK (GATEHerts), and the Gypsy, Roma, Traveller Social Work Association (GRTSWA).

Dr Unwin said: “We will meet the people who use these innovative services and explore why they attend, what seems to work for them and whether the model could be replicated elsewhere in the UK as part of a push to stem the mental health crisis among Gypsy, Roma and Traveller communities.”

The research team will focus on five projects in depth, identifying examples of effective practice and developing case studies. They will meet key health and social care organisations in those areas to see whether mainstream mental health services could be reconfigured in ways that include Gypsies, Roma and Travellers.

Dr Habib Naqvi, Director of the NHS Race and Health Observatory, said: “It is essential that healthcare professionals and clinicians who assess and treat individuals from Gypsy, Roma and Traveller communities are competent in delivering equitable care which is culturally appropriate. This work will be key in helping us tackle some of the stark health inequalities experienced by these communities.”



# STUDY FINDS CLIMATE CHANGE IS IMPACTING ON POLLEN SEASON

The UK pollen season - and consequently its effect on hay fever sufferers - is being impacted by climate change, according to a study led by the University of Worcester.



Research found a mixed picture of how climate change was affecting different types of pollen – with some starting earlier in the season and others becoming more severe.

It also highlighted how increasingly unusual weather coincided with erratic pollen seasons, and lower wind levels were affecting dispersal of pollen particles.

“Climate change is impacting on seasons positively and negatively,” said **Dr Beverley Adams-Groom**, senior pollen forecaster at the University of Worcester and lead author of the study. “It’s impacting some seasons so they’re getting worse, some seasons are starting earlier, some seasons are not getting worse. It’s a very mixed picture, but climate change is impacting on all these things. We can see that it is definitely having an effect.”

The University, which has been producing pollen forecasts for the country since 1995, led work with partners from five other institutions on the first study of how climate change is affecting pollen in the UK, which has been published in the *Science of The Total Environment* journal. Up until now, exploration of the issue had been restricted by not having a long enough period of time to observe any trends.

Researchers examined data from six pollen stations around the country between 1995 and 2020, focusing on key pollen types – grass, birch and oak. They looked at whether there had been significant changes in the patterns of these pollen seasons – such as onset, severity and duration. They analysed variations in weather to see if there were changes in the patterns that could be attributed to climate change.

Warmer weather is causing birch trees to produce more pollen and the study found the season is

getting more severe across the country, particularly significant in the Midlands. This is bad news for the 20 to 30 per cent of hay fever sufferers allergic to birch pollen.

In contrast, the oak pollen seasons are starting earlier, but not getting more severe. Dr Adams-Groom puts this down to oak pollen production happening later in the summer (both birch and oak pollen are prevalent in early spring but produced the previous summer), in months where there have not been the same significant increases in temperatures.

The study revealed that the severity of grass pollen, which affects 95 per cent of hay fever sufferers, has overall remained steady, but there is a trend towards an earlier ‘first high day’. This is the first day the pollen levels reach the ‘high’ threshold. Dr Adams-Groom said an increase in temperature in key preceding months – January, May and June – was responsible and that this echoed findings in mainland Europe. She said a decrease in wind levels between May and August – again put down to climate change – could mask any increase in grass production. Moreover, woodland and urbanisation are reducing grassland in many areas.

Dr Adams-Groom highlighted how increasingly unusual weather is leading to a varying severity in seasons. She said a very dry spring in 2020, which led to grass not growing until rain arrived in June, led to a late start to the grass pollen season and not much pollen. However, in June last year, she said it was unusually cold in May and wet in early June, which also led to a delayed season. “Unusual weather patterns are sometimes setting the season back or lowering the amount of pollen produced in grasses as well, but are also lowering dispersal. We keep seeing these things going on and it’s the same with the birch pollen. Cold winds from the east are regularly stopping the birch trees from starting their season because it’s just too cold. This is climate change affected.”

Dr Adams-Groom said it was difficult to predict the long-term future as there are many factors at play and, if action was taken to limit the effects of climate change, this could have an impact in the long term. But, if the climate trajectory remains the same, over the next decade, she expects the trends identified by the study to continue. “We know there’s going to be more extreme weather events, that’s documented and that can impact on the seasons,” she said.

## NHS RESEARCH PROGRAMME WINS REGIONAL AWARD

A programme to help clinicians in the NHS develop and improve their research skills has won a prestigious regional award.



The Research Skills training programme, known as STARS - Supporting the Advancement of Research Skills, is led by **Professor Eleanor Bradley**, from the University of Worcester, and Dr Tom Kingstone at Keele University, and is available to staff at Midlands Partnership Foundation NHS Trust, across Staffordshire and Shropshire. It is designed to support health and social care colleagues to develop their research awareness, delivery and leadership.

The programme, which was launched in January 2021, has won the 'Improvement Project of the Year' category in the Comprehensive Research Network (CRN) West Midlands research awards.

"We are so delighted to have won an award for our work to develop a course which could adapt to the needs of the clinicians, many of whom have been working on the frontline during the pandemic," said Professor Bradley.

"The programme is delivered completely online and participants can select the sessions that are relevant to them, such as workshops, 'how to' sessions,

seminars etc. It has been bringing colleagues from a variety of different roles together in a real multidisciplinary way, to learn together and from each other. By delivering online we've also been able to reach those who might not have been able to attend in-person sessions due to location, time or other commitments."

During the first year of the programme, over 18 workshops and 11 seminars were delivered as part of STARS; equating to just under 60 hours of live training opportunities. 165 staff members engaged with these learning events, representing a broad range of health and care professional groups, including psychologists, social workers, occupational therapists, physiotherapists, podiatrists.

Testimonials from those taking part have praised the course have included "I feel more confident to consider the clinical relevance of the research and whether it indicates a change to practice" and "I was feeling very overwhelmed at the thought of actually delivering a change and felt it was all on my shoulders to deliver it, however, I now believe it is actually sustainable".

Professor Bradley said the programme is now entering a second phase of development, drawing on feedback from an ongoing evaluation project. New workshops have been developed and there are plans for an accompanying tutorial and mentoring series.

Research in the NHS is vital to provide the evidence to transform services. It is widely accepted that research-active Trusts deliver improved patient outcomes, a better care experience and find it easier to retain staff. All staff working in the NHS are expected to engage with research and to routinely offer patients the opportunity to join research studies.



# SPOTLIGHT ON...



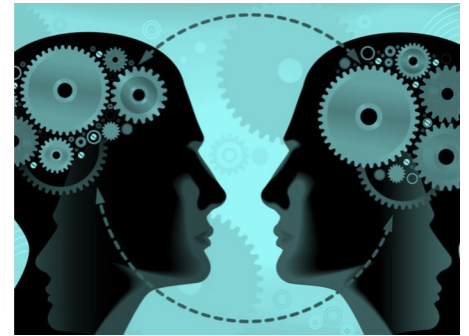
## A SPOTLIGHT ON...

### Social Psychology of Education Research Group

*"When I joined the group, I didn't feel like a researcher or an academic, but now I see research as a significant part of my future career. Being welcomed to be involved in everything, but being allowed to choose things to contribute to, based on my strengths and securities has been really good for my confidence. Simply listening to and observing colleagues engaging in research and scholarly activity has given me 'research capital' and the confidence to then engage with the opportunities there are to be involved"*

(Kim Hibbert-Mayne, SPoE member)

Social Psychology  
of Education   
Research Group



#### Who are we?

The Social Psychology of Education (SPoE) Research Group is the first within the School of Education to be formally approved by the University of Worcester Research Committee. Founded in 2016 and led by Professor Alison Kington, it brings together colleagues who are interested in the importance of social and learning interactions, relationships and identities across all phases of education, in both formal and informal settings. Our commitment is to investigate how these aspects of classroom life impact on the effectiveness and retention of practitioners, and the quality of children's school experiences.

#### What is Social Psychology of Education?

*Social psychology* is a field of psychology mainly concerned with understanding how the presence of others affects our thoughts, feelings and behaviours. *Social psychology of education* draws on social psychology, as well as work in sociology and education that focuses on social influences on individuals, in order to better understand human behaviour in education. As a field of study, this provides a framework by which we can explore how teachers, practitioners and students identify and inter-relate within educational contexts, as well as how socio-cognition interacts with everyday social and learning situations. This provides crucial insights into the dynamics within schools and classrooms, and how these can be altered or improved to ultimately improve wellbeing.

#### What do we do?

With a membership of more than 30 academics, research students and practitioners, we produce research which is cross-disciplinary in its theoretical and methodological approaches, organised around four interconnecting themes which underpin our approach to addressing current issues in education. The themes of i) educational identities, ii) classroom behaviours and interaction, iii) individual differences, and iv) adult-child and peer relationships signify the lenses through which we can investigate individual or group behaviours and how these can be influenced by the beliefs and actions of others. As a result, our research maps onto three of the University's Areas of Challenge; Professional Education, Culture, identity and Society, and Human Health and Wellbeing.

## What have we achieved?

We work in partnership with academics at several UK institutions including Universities of Oxford, Nottingham, and York, and we are currently collaborating with international colleagues from the University of Groningen, National Institute of Education, Singapore, University of Melbourne, and The Education University of Hong Kong. However, SPoE seeks not only to contribute to knowledge generation within the academic community, but also to inform policy and practice. This is evidenced through our strong links with the Chartered College of Teaching and the British Psychological Society, and our work with the Cabinet Office Open Innovation Team, the Education Select Committee, and Parliamentary Office for Science and Technology. The work of the Research Group also formed the basis of an impact case study for the 2021 Research Assessment Exercise.

Key to the success of the Research Group are the support and collaborative opportunities it offers to members. We have taken an inclusive stance, facilitating research development for those with emerging, intermediate and senior levels of experience, as well as staff on standard academic and teaching-focused contracts, to undertake research projects, publications, and apply for recognition for their work. We host a successful seminar series and organise up to three away days each year which, in the past, have included workshops on writing for publication, project development, and research methods. We have also developed a fantastic team research project entitled 'There's no place I'd rather be!' which employs a mixed methods design to explore the reasons teachers decide to remain in the profession. This has not only provided members with an opportunity to be on a research team (often for the first time) but has offered research leadership development through the three key project strands.

## What next?

In terms of the future, we have many exciting plans. In addition to building on our previous successes with grant capture from the Government of Singapore, Ogden Trust and Erasmus+, and the four fully-funded PhD studentships secured through the UW competitive process, we will continue to work with educational practitioners to identify ways in which research can have real impact on educational issues. We will also be establishing the SPoE Impact Team which will work alongside those who are undertaking projects and build on our extensive practitioner networks in order to extend the scope and reach of our research. Further, we have plans for the SPoE Press which will support and enable researchers at all levels to publish working papers and practitioner-focused research briefs online.

*“As an early career researcher, the group has been invaluable in developing my working knowledge of things like writing an ethics application, creating a survey or conducting an interview through the collaborative research I have been involved in and the research experts within the group. The group has opened up opportunities for me to work with colleagues outside my Department, outside my School and even outside the University. It makes you feel like part of vibrant research community when you then meet these colleagues at things like conferences and co-present your research”*

(Tom Weaver, SPoE member)

*“The research group has helped me to develop my research skills – from starting out with very little understanding of what research involves, I am now involved in a range of research with varied methodological approaches. Being part of the group has provided me with a multitude of opportunities – excitingly this includes a forthcoming trip to a partner university in The Netherlands”*

(Dr Ben Looker, SPoE member)





## A SPOTLIGHT ON...

### Jeremiah Adebolajo

PhD Student  
School of Education

*"A Critical Exploration of Millennial Muslim Converts' Experiences, Identity and Agency within Education in England"*

[adej2\\_19@uni.worc.ac.uk](mailto:adej2_19@uni.worc.ac.uk)

### What would be your one piece of advice to students wanting to study for a PhD?

I would give the same advice a friend of mine gave me: I was working at the time, about to leave work to pursue my PhD full-time. He had just finished his PhD full-time and had come over to Qatar to work. He advised me to treat my studies like a job. Try to do 9-5pm but just remember that I can take breaks when I want and need and give myself a bunch of cheeky 10-4pm days. When I am having a difficult day or can't find my flow in my work, I remind myself that I get lots of time at home to work, I control my own schedule and I think I'll miss that when I am back in full-time work.

### What is your area of research?

Sociology of Education. Specifically, researching the experiences of British millennial-born convert Muslims in multicultural education settings.

### Why did you decide to undertake PGR study at the University of Worcester?

My application to the University of Worcester came about for two reasons. Firstly, I had heard about and read about the work of my two supervisors. They had both researched and written quite extensively in my field of interest and so I mentioned them specifically in my application, naming them as my desired supervisors. Secondly, I knew that Worcester had a good reputation in regard to the study of Education, so when I was sure that a PhD was what I wanted to do, Worcester struck me as the place to do it.

### What opportunities have you had during your time at Worcester?

Aside from working with some great supervisors, meeting lots of really interesting fellow postgraduate students and learning lots about their work, I have had some really awesome developmental opportunities! I have presented at two well-known conferences, including the British Educational Research Association (BERA). I have completed a Post Graduate Certificate in Research Methods. But most importantly, I have had the opportunity to lecture, first as a guest lecturer and eventually I was employed as an Associate Lecturer. All of these opportunities have been great additions to my CV and enabled me to make some connections for the future.

### What has been the highlight of your PGR study so far?

For me, attending BERA and presenting my methodology and early findings was a standout moment. I was fortunate enough to be funded by the research school to attending, even though I am a self-funded student.

### What is your professional background?

Before my PhD I was working as an English teacher. I have mainly worked in the Middle East but also a little in England.

### What is your biggest achievement to date?

My biggest achievement is definitely raising a family with my wife. We have a big family and have been on some adventures in different parts of the world. My eldest daughter is in her final year of secondary school now, so it is amazing to think how far we have come! Getting my Master's degree from Exeter a few years back is up there too.

### Where do you see yourself after you have completed your course?

It is hard to say really... I would love to work for the University of Worcester, but I am keeping my options open. I do see myself working as a lecturer and researcher in some capacity.

### What do you enjoy doing outside of study?

Ah, here my answer is not going to be particularly inspiring. It is going to expose me as a nerd! I am very much a homebody - well, a family guy, maybe. I really enjoy evenings in with the family, playing monopoly or taking a long walk. This month I have loved listening to the audiobook of J.R.R Tolkien's *The Silmarillion*. I do love hiking, going to the gym and football too. Exercise is really important for wellbeing during something as potentially sedentary as a PhD.



## A SPOTLIGHT ON...

### **Nathan Stephens**

PhD Student

(Studentship funded by University of Worcester and Shaw Foundation)  
Association of Dementia Studies,  
School of Allied Health and  
Community

*"The impact of a strategic regional approach to scaling up Meeting Centres for people affected by dementia"*

[n.stephens@worc.ac.uk](mailto:n.stephens@worc.ac.uk)

### **What is your area of research?**

Social and economic value of scaling up a community-based support programme for families affected by dementia.

### **Why did you decide to undertake PGR study at the University of Worcester?**

After working in Health and Social Care on the frontline for several years I could not continue to accept the, in some cases, appalling quality of care and support. Pay and work conditions were similarly as bad, and the prospects and rewards of 'climbing the ladder' are pretty much non-existent. So I guess it is two-pronged. Morally I believe academia can challenge the status quo, and personally I want to improve my family's life chances.

### **What opportunities have you had during your time at Worcester?**

Lots! It's actually a bit odd, and to be honest, wrong, that as soon as you put PhD anywhere near your name (even if you're two days into it) people want to know your opinion on things. But back to the question, yes, I have travelled to European cities to present my research, supported various research and development projects, and importantly had the opportunity to shape the face of dementia care locally through the applied nature of my studies.

### **What has been the highlight of your PGR study so far?**

I have two. Firstly, the privilege of getting to know so many inspirational people through the research. Secondly, my improved self-confidence. I was fighting off panic attacks before supervision meetings in the first year of my PhD, and just last week I presented to over 200 people in person without much more than some clammy hands.

### **What is your professional background?**

Unpaid family care worker.

### **Where do you see yourself after you have completed your course?**

Remaining in academia to support/lead research that addresses issues of injustice and challenges those that are accountable to act.

### **What do you enjoy doing outside of study?**

Karaoke, exercise, pub, painting/drawing, poetry, politics.

I'm listening to 'Our Native Daughters' who are an American Folk supergroup. Their music is inspired by black history and particularly historical accounts of slavery. 'Quasheba, Quasheba', 'Black Myself', and 'I Knew I Could Fly' are my top picks.

I'm reading both sides of the 'growth' debate currently. Advertising small state politics, deregulation and ultra-free market capitalism is the book 'Britannia Unchained: global lessons for growth and prosperity' written by a bunch of Tory politicians. Exposing the, in some cases, irreversible social and environmental damage capitalism has created is Jason Hickel's book, 'Less Is More: how degrowth will save the world'.





## A SPOTLIGHT ON...

### **Dr Emma V. Richardson**

*Postdoctoral Research Fellow  
in Inclusive Sport*

School of Sport and Exercise Science

[e.richardson@worc.ac.uk](mailto:e.richardson@worc.ac.uk)

### **What was the subject of your PhD?**

Exploring how disabled people transitioned from gym users to gym instructors, and how they could recraft 'the gym' into a more disability inclusive exercise space

### **What is your professional background?**

I've always been involved in sport but during my undergrad at the University of Strathclyde we had to do placements every summer and I always loved working with disabled kids. Then I knew that disability had to be in my career somewhere. During my Msc year I was fortunate to do a research project on wheelchair tennis and how participating in this sport impacted wellbeing among people from developing countries. From there I sought any opportunity to work in disability sport/physical activity and really fell into love with research. I ended up doing my PhD on disability in the gym before moving to the states to focus on developing an exercise referral pathway within multiple sclerosis (MS) comprehensive care. While in the states I got to expand my horizons in disability by exploring aging and MS, wellness and MS and furthered my work on disability inclusive gyms. I then moved back to Worcester to focus more on disability and physical activity as a whole, and now work on enhancing inclusive PE with partners in Japan, bridging the gap between academic language of disability and applied practice, and promoting Worcester's reputation and practice in inclusive disability through research.

### **Which courses do you teach on at the University of Worcester?**

The MSc Adapted Sport which is being reshaped to be more inclusive for 2023/24 and research methods for level 5 in School of Sport and Exercise.

### **What are you currently working on?**

Loads! I'm really lucky to be part of a fantastic disability inclusive community within Worcester and from my time working at different institutes. The key projects I am working on right now are promoting cultural praxis as a way to shape inclusive practices in disability physical activity (basically embracing the culture and history of where disability inclusion is happening to make sure the most effective practice is done), Autism and coaching with a former fantastic MSc student, the impact of Worcester graduates in inclusive disability roles, using mobile apps as an exercise resource among people with MS, wellness and aging with MS, and various other projects that I am lucky to be a part of.

### **What advice would you give to those finishing their PhDs and are looking at moving into an ECR role?**

Remember your PhD is a steppingstone and only needs to be good enough to get you where you want to be. Embrace your viva as a positive experience as it's the one and only time you get to unashamedly talk about your research for hours, and remember that no one in that room knows your work better than you do.

Regarding moving to ECR, it's tough out there. I won't lie. Really consider what you are willing to sacrifice to move from PhD to ECR. Are you willing to move countries? What will you have to give up to follow this path? Are you wanting to do something other than research? What are the other paths that may be open to you? Are you willing to move into an area that isn't exactly what you want? This is often something you have to do and speaking from experience was a huge boon for my development.

My biggest advice regarding finding an ECR role would be to talk to people you know. Your colleagues, people you met at conferences, people in industry you may have connected with etc., as they may be privy to roles that are upcoming from their extended networks and beyond. I got my first ECR role through an academic I met and spoke to at my first conference 3 years previous, she remembered I did qualitative work in 'something' with disability and contacted me to say an ex-classmate of hers from 20 years ago was searching for someone with that experience to work with him for 2 years in Alabama. Of course, a big change and sacrifices made but I would never have heard of that job had I not spoken to that academic from 3 years before. Looking back it was a scary but right decision to move to a new country and work in an area I knew little about.

### **What is your biggest achievement to date?**

I'm so proud and humbled whenever I meet someone (researcher, practitioner, teacher) that has read some of my work and found it useful. For me, research and researchers serve the communities they work with, and the biggest achievement for me is when someone says they feel seen or validated regarding what participants and I had written about disability and physical activity/sport, or that they felt more confident talking with disabled people after reading something about language.

### **Who has influenced you the most in your career so far?**

There is not one person. There are numerous scholars (who I call academic crushes) that have hugely influenced my writing such as Carol Thomas, Cathy Charmaz, Susan Wendell, Donna Reeve, Dan Goodley (fantastic disability scholars), family and friends of course as without them this career path would in no way be possible. People that mainly influence me on a day to day are researchers and practitioners that I aspire to be like (and some I aspire NOT to be like). By this I don't mean their publication or academic record, but what they are like as people and how they treat people; their kindness, openness, humility, willingness to share, support and elevate people. One person that is a huge influence for me now as I transition from ECR to the next stage is Prof Győző Molnár as his guidance, kindness, support, encouragement, knowledge, and desire to help so many people is truly inspiring (as much as he will hate me saying that) and something I hope to embody when I am in a high position of influence.

### **How do you enjoy unwinding from teaching/research?**

I love being active. I play badminton 3 to 4 times a week, I do yoga most days, I love going hiking and going on adventures to different places, doing different things and travelling to different parts of the UK visiting my friends and family. I always try and do one new thing every week – in weeks that are unbelievably busy that could just mean watching a film I haven't seen before. I am a big proponent of listening to the needs of your body and though most of the time that means running around after sitting all day, sometimes I need to unwind from research and teaching by having a 'coorie in' day (Scots for snuggle or cuddle) with a blanket, the couch, carbs, chocolate, and the TV and having a complete physical and mental break.

**JOURNAL ARTICLE:** *Di Miceli, Mathieu, Martinat, M., Rossitto, M., Aubert, A., Alashmali, S., Bosch-Bouju, C., Fioramonti, X., Joffre, C., Bazinet, R. P. and Layé, S. (2022)* **DIETARY LONG-CHAIN N-3 POLYUNSATURATED FATTY ACID SUPPLEMENTATION ALTERS ELECTROPHYSIOLOGICAL PROPERTIES IN THE NUCLEUS ACCUMBENS AND EMOTIONAL BEHAVIOR IN NAÏVE AND CHRONICALLY STRESSED MICE.** *International Journal of Molecular Sciences*, 23 (12).

Long-chain (LC) n-3 polyunsaturated fatty acids (PUFAs) have drawn attention in the field of neuropsychiatric disorders, in particular depression. However, whether dietary supplementation with LC n-3 PUFA protects from the development of mood disorders is still a matter of debate. In the present study, we studied the effect of a two-month exposure to isocaloric diets containing n-3 PUFAs in the form of relatively short-chain (SC) (6% of rapeseed oil, enriched in  $\alpha$ -linolenic acid (ALA)) or LC (6% of tuna oil, enriched in eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA)) PUFAs on behavior and synaptic plasticity of mice submitted or not to a chronic social defeat stress (CSDS), previously reported to alter emotional and social behavior, as well as synaptic plasticity in the nucleus accumbens (NAc). First, fatty acid content and lipid metabolism gene expression were measured in the NAc of mice fed a SC (control) or LC n-3 (supplemented) PUFA diet. Our results indicate that LC n-3 supplementation significantly increased some n-3 PUFAs, while

decreasing some n-6 PUFAs. Then, in another cohort, control and n-3 PUFA-supplemented mice were subjected to CSDS, and social and emotional behaviors were assessed, together with long-term depression plasticity in accumbal medium spiny neurons. Overall, mice fed with n-3 PUFA supplementation displayed an emotional behavior profile and electrophysiological properties of medium spiny neurons which was distinct from the ones displayed by mice fed with the control diet, and this, independently of CSDS. Using the social interaction index to discriminate resilient and susceptible mice in the CSDS groups, n-3 supplementation promoted resiliency. Altogether, our results pinpoint that exposure to a diet rich in LC n-3 PUFA, as compared to a diet rich in SC n-3 PUFA, influences the NAc fatty acid profile. In addition, electrophysiological properties and emotional behavior were altered in LC n-3 PUFA mice, independently of CSDS. Our results bring new insights about the effect of LC n-3 PUFA on emotional behavior and synaptic plasticity.



**JOURNAL ARTICLE:** *Bhachu, H. K., Fenton, A., Cockwell, P., Aiyegbusi, O., Kyte, Derek and Calvert, M. (2022)* **USE OF THE KIDNEY FAILURE RISK EQUATION TO INFORM CLINICAL CARE OF PATIENTS WITH CHRONIC KIDNEY DISEASE: A MIXED-METHODS SYSTEMATIC REVIEW.** *BMJ Open*, 12 (1). e055572.

The Kidney Failure Risk Equation (KFRE) predicts the risk of end-stage kidney disease in patients with chronic kidney disease (CKD). This study aimed to evaluate the impact of the utility of KFRE in clinical practice through a systematic review looking at adult patients with CKD but not receiving renal replacement therapy enrolled in studies where KFRE was used in clinical care pathways.

Of 1635 studies identified, 440 duplicates were removed. The remaining 1195 titles and abstracts were screened. All five studies for full-text review were included in the analysis. Three uses of KFRE were assessed: (1) primary to specialty care interface; (2) general nephrology to multidisciplinary care transition; and (3) treatment

planning. Evidence of impact on number of patient referrals into nephrology care was conflicting. However, wait times improved in one study. Although KFRE identified high-risk patients for increased multidisciplinary support, there was concern patients stepped down, no longer meeting eligibility criteria, may lack access to services. This is the first systematic review of studies that have assessed the actual impact of KFRE in clinical practice with five studies of varying quality reported to date. Trials are in progress assessing the impact on clinical outcomes of using KFRE in clinical practice, and KFRE is being incorporated into guidelines for CKD management. Further studies are needed to assess the impact of KFRE on clinical care.

**JOURNAL ARTICLE:** *Bolton, S., Joyce, D. W., Gordon-Smith, Katherine, Jones, Lisa, Jones, I., Geddes, J. and Saunders, K. E. A. (2022)* **PSYCHOSOCIAL MARKERS OF AGE AT ONSET IN BIPOLAR DISORDER: A MACHINE LEARNING APPROACH.** *BJPsych Open*, 8 (4). e133.

Bipolar disorder is a chronic and severe mental health disorder. Early stratification of individuals into subgroups based on age at onset (AAO) has the potential to inform diagnosis and early intervention. Yet, the psychosocial predictors associated with AAO are unknown.

This study aims to identify psychosocial factors associated with bipolar disorder AAO. Using data from the Bipolar Disorder Research Network UK, we employed least absolute shrinkage and selection operator regression to identify psychosocial factors associated with bipolar disorder AAO. Twenty-eight factors were entered into our model, with AAO as our outcome measure.

We included 1022 participants with bipolar disorder ( $\mu = 23.0$ , s.d.  $\pm 9.86$ ) in our model. Six variables predicted an earlier AAO: childhood abuse ( $\beta = -0.2855$ ), regular cannabis use in the year before

onset ( $\beta = -0.2765$ ), death of a close family friend or relative in the 6 months before onset ( $\beta = -0.2435$ ), family history of suicide ( $\beta = -0.1385$ ), schizotypal personality traits ( $\beta = -0.1055$ ) and irritable temperament ( $\beta = -0.0685$ ). Five predicted a later AAO: the average number of alcohol units consumed per week in the year before onset ( $\beta = 0.1385$ ); birth of a child in the 6 months before onset ( $\beta = 0.2755$ ); death of parent, partner, child or sibling in the 6 months before onset ( $\beta = 0.3125$ ); seeking work without success for 1 month or more in the 6 months before onset ( $\beta = 0.3505$ ) and a major financial crisis in the 6 months before onset ( $\beta = 0.4575$ ).

The identified predictor variables have the potential to help stratify high-risk individuals into likely AAO groups, to inform treatment provision and early intervention.

**JOURNAL ARTICLE:** *Moore, Coco, Unwin, Peter, Evans, Nick and Howie, Frances (2022)* **SOCIAL PRESCRIBING: EXPLORING GENERAL PRACTITIONERS' AND HEALTHCARE PROFESSIONALS' PERCEPTIONS OF, AND ENGAGEMENT WITH, THE NHS MODEL**

Health & Social Care in the Community, Early view

Social prescribing (SP) has rapidly expanded over recent years. Previously a bottom-up, community-led phenomenon, SP is now a formal part of structured NHS policy and practice. This study was designed to ascertain how general practitioners and other primary healthcare professionals (HCPs) within one clinical commissioning group (CCG) perceive and engage with this new NHS model. The research comprised an online survey distributed to HCPs within a predominately rural, English CCG between June and August 2021. Qualitative data were gathered and analysed using reflexive thematic analysis. Positive portrayals of SP were found, although definitions and perceptions varied greatly. Many HCPs reported high levels of engagement with SP services; yet referral rates appeared to remain significantly lower than the previously estimated 20% of primary care attendees referred for social reasons. Moreover, 96% of HCPs reported signposting patients directly to community or external services, rather than

referring them to SP. This signposting, which has been positioned as a model of SP, reflects engagement with SP in practice, which is likely to have pre-dated the introduction of the fuller NHS model. HCPs may be unaware that this could be classed as a social prescription, and this type of SP remains uncaptured within NHS statistics. These results indicate an underuse of the national system set up to deliver one particular model of SP, rather than that SP does not occur. Additionally, despite national guidance issued to accompany the NHS model, practices such as referral and feedback processes, and link worker presence within practices, were not uniform even within this single CCG. Nevertheless, understanding is increasing as SP becomes embedded within primary care. The lack of consistency in referrals between practices warrants further examination in terms of equity of service choices to patients, as does the very low self-reported referral rate to SP.

**JOURNAL ARTICLE:** *Farrell, Derek, Fadeeva, A., Zat, Zeynep, Knibbs, Lorraine, Miller, P., Barron, I., Matthes, Helga, Matthes, Cordula, Gazit, N. and Kiernan, M. D. (2022)* **A STAGE 1 PILOT COHORT EXPLORING THE USE OF EMDR THERAPY AS A VIDEOCONFERENCE PSYCHOTHERAPY DURING COVID-19 WITH FRONTLINE MENTAL HEALTH WORKERS: A PROOF OF CONCEPT STUDY UTILISING A VIRTUAL BLIND 2 THERAPIST PROTOCOL.** *Frontiers in Psychology, 13.*

Objective: The COVID-19 pandemic has had a major impact on the delivery of psychological treatment. Due to social distancing requirements, the provision moved to videoconferencing psychotherapy (VCP). There is a paucity of empirical data supporting the efficacy of EMDR therapy as a VCP. This stage 1 pilot study tested an EMDR therapy scripted protocol, such as Virtual Blind 2 Therapist (VB2Tr), on frontline mental health workers as a VCP regarding fitness for purpose, distinctiveness,

relevance, and efficiency.

Methods: A total of 24 participants were recruited for the study. The design included a one-session treatment intervention with pre, post, 1-month, and 6-month follow-up (FU) measurements. This treatment session used a "Blind 2 Therapist" EMDR therapy scripted protocol as videoconference psychotherapy that involves non-disclosure of traumatic memory. The research explored the treatment effect on the core characteristics of

trauma memory, including subjective disturbance, belief systems, memory intensity (MI), vividness, and levels of emotionality. Additionally, the research explored participants' experiences of adverse and benevolent childhood experiences (ACEs/BCEs) during their childhood.

Results: Regarding the four tests, namely, fitness for purpose, distinctiveness, relevance, and efficiency, results are favourably suggesting potential clinical benefits of using EMDR as videoconference psychotherapy. Although this is a proof-of-concept study showing positive results, no clinical

population or control group was used. The purpose of the study is to explore the potential for scalability toward a larger clinical trial. The treatment intervention was achieved irrespective of either ACEs/BCEs during childhood.

Conclusion: The research tentatively supports the case for EMDR therapy as a credible treatment when used as video conference psychotherapy and in using the Blind 2 Therapist protocol. However, more research is needed to scale toward a clinical trial.

**JOURNAL ARTICLE:** Hillier, James, Allcott, Gemma, Guest, Laura, Heaselgrave, Wayne, Tonks, Alex, Conway, Myra, Cherry, Amy and Coles, Steven (2022) **THE BCAT1 CXXC MOTIF PROVIDES PROTECTION AGAINST ROS IN ACUTE MYELOID LEUKAEMIA CELLS.** Antioxidants, 11 (4).

The cytosolic branched-chain aminotransferase (BCAT1) has received attention for its role in myeloid leukaemia development, where studies indicate metabolic adaptations due to BCAT1 up-regulation. BCAT1, like the mitochondria isoform (BCAT2), shares a conserved CXXC motif ~10 Å from the active site. This CXXC motif has been shown to act as a 'redox-switch' in the enzymatic regulation of the BCAT proteins, however the response to reactive oxygen species (ROS) differs between BCAT isoforms. Studies indicate that the BCAT1 CXXC motif is several orders of magnitude less sensitive to the effects of ROS compared with BCAT2. Moreover, estimation of the reduction mid-point potential of BCAT1, indicates that BCAT1 is more reductive in nature and may possess antioxidant properties. Therefore, the aim of this study was to further characterise the BCAT1 CXXC motif and evaluate its role in acute myeloid leukaemia. Our biochemical analyses show that purified wild-type (WT) BCAT1 protein could metabolise H<sub>2</sub>O<sub>2</sub> in vitro, whereas CXXC motif mutant or WT BCAT2 could not, demonstrating for the first time a novel antioxidant role for the BCAT1 CXXC motif. Transformed U937 AML cells over-expressing WT BCAT1, showed lower levels of intracellular ROS compared with cells over-expressing the CXXC motif mutant (CXXS) or

Vector Controls, indicating that the BCAT1 CXXC motif may buffer intracellular ROS, impacting on cell proliferation. U937 AML cells over-expressing WT BCAT1 displayed less cellular differentiation, as observed by a reduction of the myeloid markers; CD11b, CD14, CD68, and CD36. This finding suggests a role for the BCAT1 CXXC motif in cell development, which is an important pathological feature of myeloid leukaemia, a disease characterised by a block in myeloid differentiation. Furthermore, WT BCAT1 cells were more resistant to apoptosis compared with CXXS BCAT1 cells, an important observation given the role of ROS in apoptotic signalling and myeloid leukaemia development. Since CD36 has been shown to be Nrf2 regulated, we investigated the expression of the Nrf2 regulated gene, TrxRD1. Our data show that the expression of TrxRD1 was downregulated in transformed U937 AML cells overexpressing WT BCAT1, which taken with the reduction in CD36 implicates less Nrf2 activation. Therefore, this finding may implicate the BCAT1 CXXC motif in wider cellular redox-mediated processes. Altogether, this study provides the first evidence to suggest that the BCAT1 CXXC motif may contribute to the buffering of ROS levels inside AML cells, which may impact ROS-mediated processes in the development of myeloid leukaemia.



# SUSTAINABLE FUTURES

**JOURNAL ARTICLE:** Apangu, Godfrey, Frisk, Carl, Petch, Geoffrey, Muggia, Lucia, Pallavicini, Alberto, Hanson, Mary and Skjøth, Carsten (2022) **ENVIRONMENTAL DNA REVEALS DIVERSITY AND ABUNDANCE OF ALTERNARIA SPECIES IN NEIGHBOURING HETEROGENEOUS LANDSCAPES IN WORCESTER, UK.** *Aerobiologia*.

*Alternaria* is a pathogenic and allergenic fungus affecting 400 plant species and 334 million people globally. This study aimed at assessing the diversity of *Alternaria* species in airborne samples collected from closely located (7 km apart) and heterogeneous sites (rural, urban and unmanaged grassland) in Worcester and Lakeside, the UK. A secondary objective was to examine how the ITS1 subregion varies from ITS2 in *Alternaria* species diversity and composition. Airborne spores were collected using Burkard 7-day and multi-vial Cyclone samplers for the period 5 July 2016–9 October 2019. Air samples from the Cyclone were amplified using the ITS1 and ITS2 subregions and sequenced using Illumina MiSeq platform whereas those from the Burkard sampler were identified and quantified using optical microscopy. Optical microscopy and eDNA revealed a high abundance

of *Alternaria* in the rural, urban and unmanaged sites. ITS1 and ITS2 detected five and seven different *Alternaria* species at the three sampling sites, respectively. *A. dactylidicola*, *A. metachromatica* and *A. infectoria* were the most abundant. The rural, urban and unmanaged grassland sites had similar diversity (PERMANOVA) of the species due to similarity in land use and proximity of the sites. Overall, the study showed that heterogeneous and neighbouring sites with similar land uses can have similar *Alternaria* species. It also demonstrated that an eDNA approach can complement the classical optical microscopy method in providing more precise information on fungal species diversity in an environment for targeted management. Similar studies can be replicated for other allergenic and pathogenic fungi.

**JOURNAL ARTICLE:** Bilir, Ö., Göl, Deniz, Hong, Yiguo, McDowell, J. M. and Tör, M. (2022) **SMALL RNA-BASED PLANT PROTECTION AGAINST DISEASES.** *Frontiers in Plant Science*, 13.

Plant diseases cause significant decreases in yield and quality of crops and consequently pose a very substantial threat to food security. In the continuous search for environmentally friendly crop protection, exploitation of RNA interference machinery is showing promising results. It is well established that small RNAs (sRNAs) including microRNA (miRNA) and small interfering RNA (siRNA) are involved in the regulation of gene expression via both transcriptional and post-transcriptional RNA silencing. sRNAs from host plants can enter into pathogen cells during invasion and silence pathogen genes. This process has been

exploited through Host-Induced Gene Silencing (HIGS), in which plant transgenes that produce sRNAs are engineered to silence pest and pathogen genes. Similarly, exogenously applied sRNAs can enter pest and pathogen cells, either directly or via the hosts, and silence target genes. This process has been exploited in Spray-Induced Gene Silencing (SIGS). Here, we focus on the role of sRNAs and review how they have recently been used against various plant pathogens through HIGS or SIGS-based methods and discuss advantages and drawbacks of these approaches.

**JOURNAL ARTICLE:** *Mockford, Alice, Westbury, Duncan, Ashbrook, Kate, Urbaneja, Alberto and Tena, Alejandro (2022)* **STRUCTURAL HETEROGENEITY OF WILDFLOWER STRIPS ENHANCES FRUCTOSE FEEDING IN PARASITIDS.** *Agriculture, Ecosystems & Environment, 339 (108139).*

The use of wildflower strips to provide carbohydrate resource for parasitoids and enhance pest regulation is widely recommended in agriculture. However, how the management of wildflower strips affects resource availability and utilisation by parasitoids has never been studied. Using orange orchards as a model system, three experimental alleyway management treatments were investigated: a control treatment where naturally occurring vegetation in the alleyways between rows of trees was managed under standard farm practice; a standard management wildflower treatment in which sown wildflower strips in alleyways were managed by cutting once a year; and an active management wildflower treatment, in which the wildflower strips in alleyways was managed by cutting three times a year. Wildflower strips under standard management prevented the seasonal decline of nectar, supporting fructose feeding in parasitoids across all three seasons. The abundance of floral and hemipteran honeydew carbohydrate

resources in the orchard alleyways and citrus canopy was consistently greater with the standard management treatment than the control or the active management treatments. In turn, this treatment was associated with twice the abundance of primary parasitoids than with the control and active management treatments in both summer and autumn. In addition, in autumn, parasitoids were more likely to have recently fed on carbohydrate in the standard management treatment than in the other two alleyway treatments. Finally, greater carbohydrate feeding in parasitoids was associated with increased structural heterogeneity of vegetation within the orchard alleyways. This study demonstrates that the nutritional status of parasitoids in a perennial cropping system can be improved using wildflower strips, which could enhance pest regulation, and emphasises the importance of studying the management of wildflower strips when targeting specific resource requirements.

## *SOCIAL EXCLUSION, CULTURE AND IDENTITY*

**JOURNAL ARTICLE:** *Sewell, Alexandra, Kennett, Anastasia and Pugh, Victoria (2022)* **UNIVERSAL DESIGN FOR LEARNING AS A THEORY OF INCLUSIVE PRACTICE FOR USE BY EDUCATIONAL PSYCHOLOGISTS.** *Educational Psychology in Practice.*

Educational psychologists seek to keep abreast of significant theoretical and practical developments within the field of inclusive education. This paper outlines and discusses Universal Design for Learning as a theory of inclusion, highly applicable for use by educational psychologists. The Universal Design for Learning (UDL) framework is introduced by exploring the contextual history of its development and explaining the three pillars of the framework;

the 'affective networks', the 'recognition networks', and the 'strategic networks'. Application of the UDL framework is demonstrated with classroom-based examples, drawing on existing research. A critical stance is taken towards understanding the current drawbacks of UDL, and direct links to educational psychology practice are made and critically reviewed considering these.

**BOOK:** *Molnar, Gyozo and Bullingham, Rachael (eds.) (2022) ROUTLEDGE HANDBOOK OF GENDER POLITICS IN SPORT AND PHYSICAL ACTIVITY.* Routledge International Handbooks . Routledge, London. ISBN 9780367555221.

This progressive and broad-ranging handbook offers a comprehensive overview of the complex intersections between politics, gender, sport and physical activity, shining new light on the significance of gender, sport and physical activity in wider society.

Featuring contributions from leading and emerging researchers from around the world, the book makes the case that gender studies and critical thinking around gender are of particular importance in an era of increasingly intolerant populist politics. It examines important long-term as well as emerging themes, such as recent generational shifts in attitudes to gender identity in sport and the socio-cultural expectations on men and women that have traditionally influenced and often disrupted

their engagement with sport and physical activity, and explores a wide range of current issues in contemporary sport, from debates around the contested gender binary and sex verification, to the role of the media and social media, and the significance of gender in sport leadership, policy and decision-making.

This book is an authoritative survey of the current state of play in research connecting gender, sport, physical activity and politics, and is an important contribution to both sport studies and gender studies. It is fascinating reading for any student, researcher, policy-maker or professional with an interest in sport, physical activity, social studies, public health or political science.

## PROFESSIONAL EDUCATION

**JOURNAL ARTICLE:** *Thomas, Gavin , Devine, Kathryn and Molnár, Győző (2022) EXPERIENCES AND PERCEPTIONS OF WOMEN STRENGTH AND CONDITIONING COACHES: A SCOPING REVIEW.* International Sport Coaching Journal. pp. 1-13. ISSN Print 2328-918X Online 2328-9198

Women continue to be underrepresented and underserved in the field of strength and conditioning (S&C), yet scholarly work examining the experiences and perceptions of women S&C coaches is limited. Thus, the purpose of this study was to conduct a scoping review of the existing literature on women S&C coaches to identify current trends as well as knowledge gaps. Four electronic databases (SPORTDiscus, PsycINFO, MEDLINE, and Academic Search Complete) were searched up to July 30, 2021. The initial search yielded 164 unique English-language papers, reviews, and book chapters. All in all, seven peer-reviewed articles were included, and data from

these studies were charted. Each article offers insight into women's experiences within the S&C industry, which are significantly different to their male counterparts. Based on our review of the findings, we recommend S&C coaches to participate in coach education programs and more women to be actively involved in the recruitment and hiring of S&C staff. While such findings are relevant, they have not fully explored the complexity of gender dynamics in S&C. Moreover, these recommendations will have limited long-term, sector-wide impact unless necessary policies are also implemented to help eradicate structure-level gender bias within the culture of S&C.



**JOURNAL ARTICLE:** *Cliffe, Johanna and Solvason, Carla (2022)* **WHAT IS IT THAT WE STILL DON'T GET? – RELATIONAL PEDAGOGY AND WHY RELATIONSHIPS AND CONNECTIONS MATTER IN EARLY CHILDHOOD.** Power and Education, online first.

Within this literature-based article the authors consider the importance and power of relationships, within the field of early years education and care (ECEC). Drawing on the lenses of attachment and development theory, alongside current literature and research, the authors critically explore the significance of relationships in child development, including the crucial role that they play in general physical and emotional health and development, as

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including the crucial role that they play in general physical and emotional health and development, as well as more long-term mental health and wellbeing. Children's relational worlds have recently been challenged by the pandemic and subsequent lockdowns, social isolation and safety measures. This article argues that while the full implications of the pandemic have yet to be realised, the relational implications for children are more important than ever before. Dominant discourses regarding attachment and early bonding are discussed, alongside the lesser explored discourses around companionship attachment and how this connects to relational pedagogy, and wider notions of genetic heritage and ecocultural literacy.

**BOOK:** *Monaghan, Chris (2022)* **ACCOUNTABILITY, IMPEACHMENT AND THE CONSTITUTION: THE CASE FOR A MODERNISED PROCESS IN THE UNITED KINGDOM.** Routledge Frontiers in Accountability Studies . Routledge, Abingdon. ISBN 9781032215815.

This book sets out and explores the case for a modernised impeachment process for the United Kingdom.

The work examines the present law and history of impeachment in the UK, which today is widely regarded as having fallen into desuetude and its procedures inappropriate for modern conditions. It discusses how impeachment operates in two countries, the United States and Denmark, selected respectively for their marked differences and similarities to the United Kingdom's political and constitutional system, for the purposes of

illumination and possible lessons for a new impeachment process.

The book seeks to provide a balanced and independent examination of the case for this, concluding that it would have a valuable role to play in the future development of the United Kingdom's system of politics and government. It concludes by setting out a detailed model for the structure, working, and effect of impeachment.

The book will be of interest to students, academics and policy-makers working in the areas of Constitutional Law and Politics.

**BOOK:** *Lipscomb, Martin (ed.) (2022)* **COMPLEXITY AND VALUES IN NURSE EDUCATION: DIALOGUES ON PROFESSIONAL EDUCATION.** Routledge: Taylor & Francis, Abingdon. ISBN 9780367672218.

This book explores the interplay of complexity and values in nurse education from a variety of vantages. Contributors, who come from a range of international and disciplinary backgrounds, critically

engage important and problematic topics that are under investigated elsewhere. Taking an innovative approach each chapter is followed by one or more responses and, on occasion, a reply to responses.

This novel dialogic feature of the work tests, animates, and enriches the arguments being presented. Thought-provoking, challenging, and

occasionally rumbustious in tone, this volume has something to say to both nurse educators (who may find cherished practices questioned) and students.

**JOURNAL ARTICLE:** *Toon, Wendy (2022)* **"REAL WAR AMMUNITION:" ARTISTS FOR VICTORY, THE NATIONAL WAR POSTER COMPETITION, AND THE HOSTILE IMAGINATION ON THE UNITED STATES WORLD WAR II HOME FRONT.** *The Journal of American Culture*, 45 (1).

Artists for Victory (AFV), the New York City-based, national artists' organization, was founded in 1942, when the U.S. government was actively seeking to connect with the community of artists in and around the city. Its creation was motivated primarily by patriotism and the conviction that there was an important role for art in the war effort on the home front. This was to be demonstrated through AFV's National War Poster Competition (NWPC) of 1942, which aimed to address the woeful standard of posters designed to underpin the

morale of Americans at home. This paper focuses on posters submitted under the heading "The Nature of the Enemy," the Competition's most popular theme and argues that they captured the hostile imagination, the specific way of thinking that the state of enmity led to on the home front during World War II. This, in turn, assisted the ongoing process of enmification, or enemy-image creation, and thus might be said to represent the reactions of the American people, as voiced by their artists.

## DIGITAL INNOVATION

**JOURNAL ARTICLE:** *McGowan, Jack (2022)* **MOVED THROUGH THE SCREEN: EXPERIENCING SPOKEN WORD THROUGH DIGITAL MEDIA PLATFORMS.** *Writing in Practice*, 7.

While attendance at performance poetry and spoken word events is on the rise, the dominant modes of encounter and consumption of contemporary spoken word rely much more heavily on digital platforms than on live performance, with views of high profile spoken word videos and clips reaching well into the millions. This paper explores the contention that the transmission of affect (the movement of feeling and emotional states which forms an experiential cornerstone of live poetry performance) is also a key part of the experience of spoken word viewed digitally through multimodal platforms such as YouTube, Vimeo, and other file sharing networks. While it is immutable that affect cannot be physically passed between bodies in the context of digital media consumption, this paper contends that the production of powerful affective drives within the body of the viewer is nonetheless assisted by the performance of spoken word viewed

through a digital medium. Drawing from material affect theories and an examination of online communities, this paper presents a case for the consumption of spoken word via multimodal digital platforms as a site par excellence for the encounter and exchange of affect, as well as the proliferation of bold and socially engaged spoken word content. In doing so, the paper articulates new ways of thinking about the relationship between modes of consumption in performance poetics, and the importance of such creative practice in the contemporary digital world. Of particular note, there are also clear implications for Creative Writing pedagogy that can be drawn out of this intersection between creative practice and the digital space. Reconsidering the role of multimodal platforms in producing and receiving contemporary spoken word provides new opportunities to inspire socially informed and digitally engaged study.

**JOURNAL ARTICLE:** Tomlinson, Andrew, Parkin, S. and Shaikh, S. A. (2022) **DRIVERS AND BARRIERS FOR SECURE HARDWARE ADOPTION ACROSS ECOSYSTEM STAKEHOLDERS**

Journal of Cybersecurity, 8 (1). tyac009. ISSN 2057-2093

The decisions involved in choosing technology components for systems are poorly understood. This is especially so where the choices pertain to system security and countering the threat of cybersecurity attack. Although common in some commercial products, secure hardware chips provide security functions such as authentication, secure execution and integrity validation on system start, and are increasingly deemed to have a role in devices across sectors, such as IoT devices, autonomous vehicle systems and critical

infrastructure components. To understand the decisions and opinions regarding the adoption of secure hardware, we conducted 23 semi-structured interviews with senior decision-makers from companies spanning a range of sectors, sizes and supply-chain roles. Our results consider the business propositional drivers, barriers and economic factors that influence the adoption decisions. Understanding these would help those seeking to influence the adoption process, whether as a business decision, or as a trade or national strategy.

**JOURNAL ARTICLE:** Gaskin, Kerry, Smith, L. and Wray, J. (2022) **AN IMPROVED CONGENITAL HEART ASSESSMENT TOOL: A QUALITY IMPROVEMENT OUTCOME.** Cardiology in the Young, First view

CHD was the most prevalent congenital anomaly (60.9 per 10,000, 95% CI 59.0–62.8) in England in 2018, with 1767 babies born with severe cardiac defects. The 30-day survival rates for complex procedures continue to improve; however despite care advances, the early post-operative period and first year of life remain a critical time for these infants. The Congenital Heart Assessment Tool was developed to support parental decision-making, standardise care provision, improve communication, and the safety and quality of care. This study set out to further evaluate the Congenital Heart Assessment Tool.

A four centre collaborative mixed-methods quality improvement project funded by The Health Foundation, involving eight phases conducted during 2016–2018. Phases six to eight (clinical

simulation exercise, parent workshop, and updated tool) are reported in this paper.

Four themes emerged from the clinical simulation exercise (phase six) including: improving documentation; preparation of parents; preparation of health care professionals; and communication. One main theme emerged from the parent workshop (phase seven): “what parents know versus what professionals know [about CHD]”.

These phases further validated the effectiveness of the CHATm in terms of triggering amber and red indicators and demonstrated parents’ ability to identify deterioration in their infant’s clinical condition. Recommendations arising from the quality improvement project enabled the project team to create an updated version of the Congenital Heart Assessment Tool, CHAT2.



**BOOK:** *Savin-Baden, Maggi and Reader, John (eds.) (2022) POSTDIGITAL THEOLOGIES: TECHNOLOGY, BELIEF, AND PRACTICE.* Postdigital Science and Education . Springer, Cham, Switzerland. ISBN 978-3-031-09404-0

This book is about the relationships between technologies and the content of religious belief and practice. A number of models are now starting to emerge, but each of these depends on the theological or philosophical framework within which the debate is set. At the same time, there are dilemmas operating at different ends of the

spectrum. For example, at one end there is a tendency towards subsuming the digital within the divine, and at the other an instrumental stance relating to how technology is deployed. Either of these stances could be said to ignore rather than acknowledge that the human itself is being changed as a result of the interactions with the digital.

**P JOURNAL ARTICLE:** *rice, James, Santos, H. O. and Bueno, Allain (2022) THE EFFECTIVENESS OF AUTOMATED DIGITAL HEALTH SOLUTIONS AT SUCCESSFULLY MANAGING OBESITY AND OBESITY-ASSOCIATED DISORDERS: A PICO-STRUCTURED INVESTIGATION.* Digital Health, 8.

Most adults in the UK and USA are classified as overweight or obese. Recent studies suggest that the prevalence of obesity has further increased during the SARS-CoV-2 pandemic and associated lockdowns. Digital technologies may be effective at managing obesity and related comorbidities, a potential further justified by social isolation and distancing circumstances.

This review of published literature employed a Patient-Intervention-Comparison-Outcome structured approach on the use of digital solutions to determine the effectiveness of their use in the management and treatment of obesity, hypertension, and type 2 diabetes and included commercially available, automated devices and applications that did not require intervention from a clinician. Our search covered studies published between January 2004 and February 2019, and 18 papers were included in the final analysis. The digital solutions reviewed were smartphone applications, wearable activity trackers, and 'digital medicine

offerings' (DMO), including ingestible sensors and wearable patches.

This study found that not all interventions were effective at encouraging the lifestyle changes required for the management of obesity. Smartphone applications requiring interaction from the patient appeared to be more effective at encouraging engagement with treatment interventions than more passive wearable activity trackers. Automated feedback from smartphone applications was effective at managing type 2 diabetes, while DMO were effective at reducing blood pressure.

With the advancement of new technologies alongside a rapid increase in the prevalence of obesity and associated disorders, further studies comparing the various technologies available in larger sample populations for longer periods would help determine the most cost-effective preventive and therapeutic strategies.

## DOCUMENTING AFRICANS IN TRANS-ATLANTIC SLAVERY (DATAS)

Between the early sixteenth century and the mid-nineteenth century, an estimated 12.5 million African men, women and children were forcibly exported to the Americas by ships of various nations (<https://www.slavevoyages.org/assessment/estimates>). Historians still know comparatively little about the identities of these individuals and where they originated from in pre-colonial Africa. Suzanne Schwarz, Professor of History at the University of Worcester, is part of an international team from Canada, France and the UK that is using new research methodologies to trace the origins and experiences of individuals in the African diaspora. This multidisciplinary digital humanities project draws on a vast array of original sources from Africa and the Americas to trace fragments of evidence that shed new light on the cultural identities of Africans from the era of the transatlantic slave trade. This innovative project is led by Paul E. Lovejoy, Distinguished Research Professor and Canada Research Chair in African Diaspora History at York University, Toronto. Project partners also include Professor Myriam Cottias, Research Director at the Centre National de la Recherche Scientifique in Paris, and Professor Sean Kelley at the University of Essex.



**Prof. Suzanne Schwarz**

Suzanne Schwarz's research on tracing the testimonies and life stories of Africans released at Freetown in the early nineteenth century is an integral part of this DATAS project. Archival sources held in the Sierra Leone Public Archives (and currently undergoing digital preservation through a British Library Endangered Archives project led by Schwarz) include reference to the ethnonyms used to describe Africans uprooted and displaced by the trade, thereby shedding light on aspects of their origins and identities. DATAS was one of only ten projects funded globally by the Trans-Atlantic Platform Social Innovation call in 2018 (<https://www.transatlanticplatform.com/2019/12/17/t-ap-social-innovation-call-awards-announced/>). The website explains how 'A total of approximately €4,966,000 million was awarded to ten international teams to investigate collaborative research projects which will add to understandings of social innovation and deliver social innovations through new research'.

Public engagement is central to the DATAS project, as the team is developing linked open-source digital databases that will be freely accessible to academic and public audiences globally. This research project is timely as it is taking place during the United Nations International Decade for People of African Descent (2015-2024) and in a context of Black Lives Matter. An important aim of the research project is to challenge current inequalities by encouraging wider enquiry about the impact of slavery at a global level. In October 2022, Schwarz's research on the identities of enslaved Africans was featured in a recent programme entitled 'Recaptive 11,407' on the BBC World Service. In this programme, the poet Raymond Antrobus, traced the 'lost story of a deaf man freed from slavery' (<https://www.bbc.co.uk/programmes/w3ct4kr3>).

Descriptions and Disposal of Liberated Africans  
 which were received, viz. to the ~~Trustees~~  
 of Margate, and unappropriated in the same

Name	Disposal
1. John	to the Trustees of Margate
2. James	to the Trustees of Margate
3. Thomas	to the Trustees of Margate
4. William	to the Trustees of Margate
5. Robert	to the Trustees of Margate
6. Charles	to the Trustees of Margate
7. George	to the Trustees of Margate
8. Edward	to the Trustees of Margate
9. Richard	to the Trustees of Margate
10. Henry	to the Trustees of Margate
11. John	to the Trustees of Margate
12. James	to the Trustees of Margate
13. Thomas	to the Trustees of Margate
14. William	to the Trustees of Margate
15. Robert	to the Trustees of Margate
16. Charles	to the Trustees of Margate
17. George	to the Trustees of Margate
18. Edward	to the Trustees of Margate
19. Richard	to the Trustees of Margate
20. Henry	to the Trustees of Margate

of West Africa, viz. on the 12th day of August 1812

*Disposal*

- Apprenticed to John Pakenham (Capt. Marine)
- to the Hon. J. Forbes (1st in Command)
- to Robert Buchanan
- to John Bantlett (Capt. Marine)
- to John Small (1st in Command)
- to D. Buchanan (Surgeon)
- to Archibald Morrison (Capt. Marine)
- to Robert Gray (Capt. Marine)
- to Montague James (Surgeon)
- to Charles Chambers (Surgeon)
- to Abraham Hoyle (Surgeon)
- to Mrs Jackson (Wife of Surgeon)
- to James Cummins (Artillerist)
- to Patience Richards (Wife of Surgeon)
- to Kenneth Macaulay (Capt. Marine)
- to Monte F. Forbes (1st in Command)
- to Richard Pochard (Surgeon)
- to J. P. Thomson Esq (Surgeon)

Image of page from Register of Liberated Africans, 1808-1812, Courtesy of Sierra Leone Public Archives.



# LEVERAGING TECHNOLOGY FOR THE ASSESSMENT AND MONITORING OF FRAGILE INFANTS WITH COMPLEX CONGENITAL HEART DISEASE IN THE COMMUNITY

A collaborative project between colleagues in the Three Counties Medical School, Worcester Business School and external partners, has been awarded funding from the National Institute for Health and Care Research (NIHR) i4i funding scheme to develop technology to help parents care for babies with complex heart conditions.

*“Development of a prototype mobile application, based on the Congenital Heart Assessment Tool (CHAT2), aims to empower and enable parents to rapidly escalate concerns of clinical deterioration in their infants who have been discharged home in between the first two stages of cardiac surgery for complex congenital heart disease. These infants are particularly fragile during their first year of life, therefore parental activation of a rapid response initiates a vital approach to patient safety” - Dr Kerry Gaskin*



**Dr Kerry Gaskin**  
Associate Professor of  
Nursing, UW



**Dr Chris Bowers**  
Principal Lecturer in  
Computing, UW

**Prof. Jo Wray**  
Professor of Child Health  
Psychology – Cardiology,  
Critical Care and  
Transplantation, Institute  
of Cardiovascular Science,  
UCL

**Suzie Hutchinson**  
CEO,  
Little Hearts Matter

Babies with complex heart conditions have their first heart surgery in the first few days of life and require several further stages of surgery. They remain fragile after surgery and in the early weeks after discharge home. The paper based Congenital Heart Assessment Tool (CHAT2) was developed to help parents to monitor their baby's condition at home using a traffic light system (red, amber, green) to indicate the need for involvement of healthcare professionals, based on the daily monitoring of their baby's condition and behaviour. Evidence gained from parents' forums and studies about CHAT2 have highlighted parental and clinicians' fears about taking sick infants' home from hospital and venturing out into normal life. Additionally, barriers to the success of CHAT2 include the anxieties of parents in managing frequent monitoring and reliable transmission of information.

This project will develop a prototype mobile application (App) for smartphones or tablets, that helps these parents to make life saving decisions about their baby wherever they are. Using technology to convey this important information enables immediate communication with healthcare professionals, and management of the situation more quickly.

## **Phase 1 (Sept-Oct)**

Focus groups with parents and healthcare professionals to identify essential functional (e.g. CHAT2 parameters) and non-functional (e.g. plain English) requirements to ensure the App meets everyone's needs.

## **Phase 2 (Nov-Jan)**

The App will be specified, designed, and developed based on the information from phase 1.

## **Phase 3 (Jan-Feb)**

User testing to ensure the App has the potential to address need of parents and healthcare professionals.

FUNDED BY

**NIHR** | National Institute for  
Health and Care Research



# DECIPHERING PATHOGENICITY AND DEVELOPMENT IN OBLIGATE DOWNY MILDEW PATHOGEN USING SMALL RNA APPROACH

## *Small RNA: A new frontier in plant protection?*

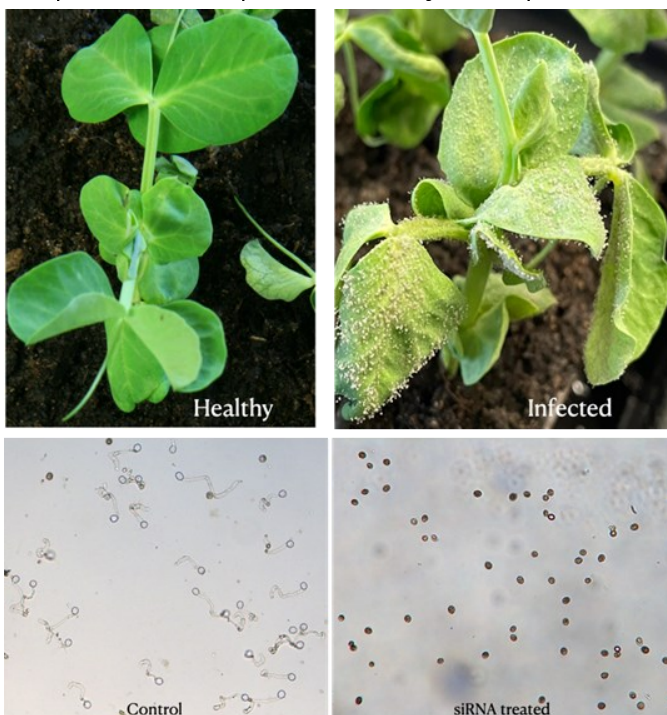
It's 2022, and there are currently 8 billion people alive on the planet. In 1922, just 100 years ago, that figure was less than 2 billion. The global population is predicted to hit 10 billion by 2058. Such growth has led to unprecedented demand for nutritious, safe and culturally appropriate foods, placing an enormous, and increasing, pressure on agriculture. To rise to the challenge, sustainable intensification by reducing the use of water, fertilizers and pesticides to obtain greater yields, has been promoted. However, crop losses of up to 40% due to pests and pathogens in a changing environment with economic and social impact is still high and new, innovative, and environmentally safe approaches are constantly being explored. The development of genetically modified (GM) plants has been suggested as an alternative to combat pests and pathogens, but the legislative limitations and public opposition to cultivation of GM crops in many countries have hindered the use of this approach.

Recent progress in RNA technology offers a GM-free solution to crop protection. At the molecular level, a cell controls its genes by "turning them on or off". When synthetically synthesized double stranded RNA (dsRNA) molecules with similarity to a known gene in the pathogen are sprayed onto plants infected with pathogens, these molecules are taken up by the plant or the pathogen and split by enzymes within the plant or pathogen cell into smaller segments known as small interfering RNA (siRNA). These resultant siRNA fragments guide the gene silencing machinery of the pathogen cell, "turning off" the targeted gene. This method is known as spray induced gene silencing (SIGS). Depending on the function of the target gene, SIGS can lead to inhibition of spore germination, infection, colonisation, replication, or development of the pathogen, resulting in healthier crops.

Professor Mahmut Tör's research group has been working on downy mildew diseases of model and crop plants such as pea. As the major component of the cell wall of the downy mildew pathogen is cellulose, the



**Prof. Mahmut Tör**  
Chair of Molecular  
Plant & Microbial  
Biology, UW



group targeted the gene responsible for the production of cellulose using SIGS. The research demonstrated the ability to inhibit pathogen spore germination and infection. Recently, Professor Tör obtained funding from the Biotechnology and Biological Sciences Research Council (BBSRC) to continue this exciting research on plant downy mildews using SIGS. Prof Tör's group aims to use next generation sequencing technology to identify genes that are involved in spore germination, infection, development and sporulation. Subsequently, they want to "turn off" more than 250 of these genes using SIGS to identify those genes that alter pathogen infection or development. Through these studies, they hope to expand their research and identify targets for controlling downy mildew diseases on crops as an approach to increasing crop yields to help address the global food crisis.

## THE HIVE AT 10

The HiveAt10 celebrates a successful 10-year partnership between the University of Worcester and Worcestershire County Council which has seen the creation of Europe's first fully integrated university and public library. The Hive has reimagined what a library should be in the 21st Century, connecting and engaging communities, creating opportunities, and promoting a love of learning.

By working together, the University and County Council management teams jointly developed a striking and sustainable building that acts as a highly popular focal point to support community and student access to essential public services, including library and historic archive facilities, and archaeology services.



The programme of themed, strategic public and community engagement events linked the Hive's tenth birthday in 2022 was a great success. The themes were: 'Culture and Creativity', 'Education and Research', 'Heritage', 'Reading and Literacy', 'Sustainability', 'Digital Inclusion', 'Business Support' and 'Health and Wellbeing'. These events gave us the opportunity to showcase the great work we do across the University, and to further develop our dialogue with the public. Thanks to all staff who supported this by providing sessions.

### The Hive Cultural Programme

The Hive's Cultural Programme launched on 1st October. The first part of the new programme focusses on the theme of Migrating Communities, recognising the cultural contribution that communities relocating in Worcestershire have brought to the county. A variety of events, exhibitions and activities will be taking place between 1st October to 31st December.

A new theme will be introduced quarterly as The Hive's Cultural Programme looks to bring together events and activities, both within the building and through the library's online and digital offer, that are topical and representative of societal issues.

## MA CREATIVE MEDIA EXHIBITION

13-23 September 2022

Jess Barrett / Xiola Johnson / Lucie Kubascikova /  
Juliet Mootz / Becky Turner

Graduates from the MA Creative Media course had their work displayed in a public exhibition of their work in the windows of the Art House.





## RAIL TRAILS: WORCESTERSHIRE

A joint venture between the School of Arts, Worcestershire Community Rail Partnership, and the Worcester Ramblers, has begun to establish walking routes between railway stations in Worcestershire.

William Whiting, Chair of Worcestershire Community Rail Partnership, said: *"I am very excited to promote linear walks trails from stations in Worcestershire. Many other areas of the country have walks from stations as a way of encouraging use of local rail services and at the same time promoting healthy lifestyles. As a keen walker I believe the best way to see the countryside is by walking and these rail trails will provide the opportunity to explore some lovely parts of Worcestershire."*

Keep track of their progress on the Rails Trails Worcestershire blog: <https://rail-trails.blogspot.com/>



## OVER THE COUNTER: POISON, PHARMACY AND CRIME FICTION

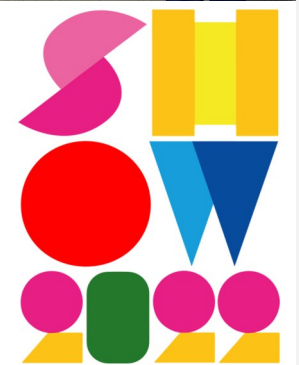
21 October 2022

Dr Lucy Arnold (Senior Lecturer, English Literature) and Dr Charley Barnes (Lecturer, Creative and Professional Writing at the University of Wolverhampton) delivered a sold-out public lecture at Worcester City Art Gallery and Museum on the significance of poison in crime fiction through the decades, focussing on novelists Dorothy L Sayers and Agatha Christie.



*"For me, when poison is present in these texts, we are being asked to question how apparently innocuous objects, substances and habits might harbour risk and danger and how vulnerable we might be, even in the spaces we feel most at home. These substances might be in the home for a domestic purpose, but be seized on to commit a crime."* - Dr Lucy Arnold





## IMAGES OF RESEARCH 2022

The images of Research exhibition is an annual event that takes place at the Hive. It give staff and students involved in research the opportunity to visually express the nature of their study.

*"Communicating your research is a vital way to disseminate new knowledge and increase engagement with different audiences. We are familiar with journal articles, conference presentations and research posters, but could you articulate the core ideas of your research in a single image?"*

This year's event was a great success which culminated in an award evening to celebrate the winners.

Thank you to everyone who entered the competition this year. We look forward to seeing what Images of Research 2023 brings.

### Public Choice Award

Winner - Claudia Andrea Tapia Arenas, Science and the Environment



Runner Up - Mary-Ann Preece, Education

Runner Up - Antoinette Frearson, Education

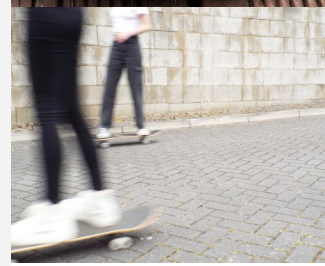
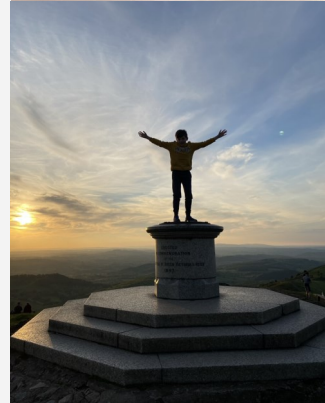
### Judges Choice Award

Winner - Antoinette Frearson, Education



Runner Up - Juliet Mootz, Arts

Runner Up - Dr Mathieu Di Miceli, Science and the Environment



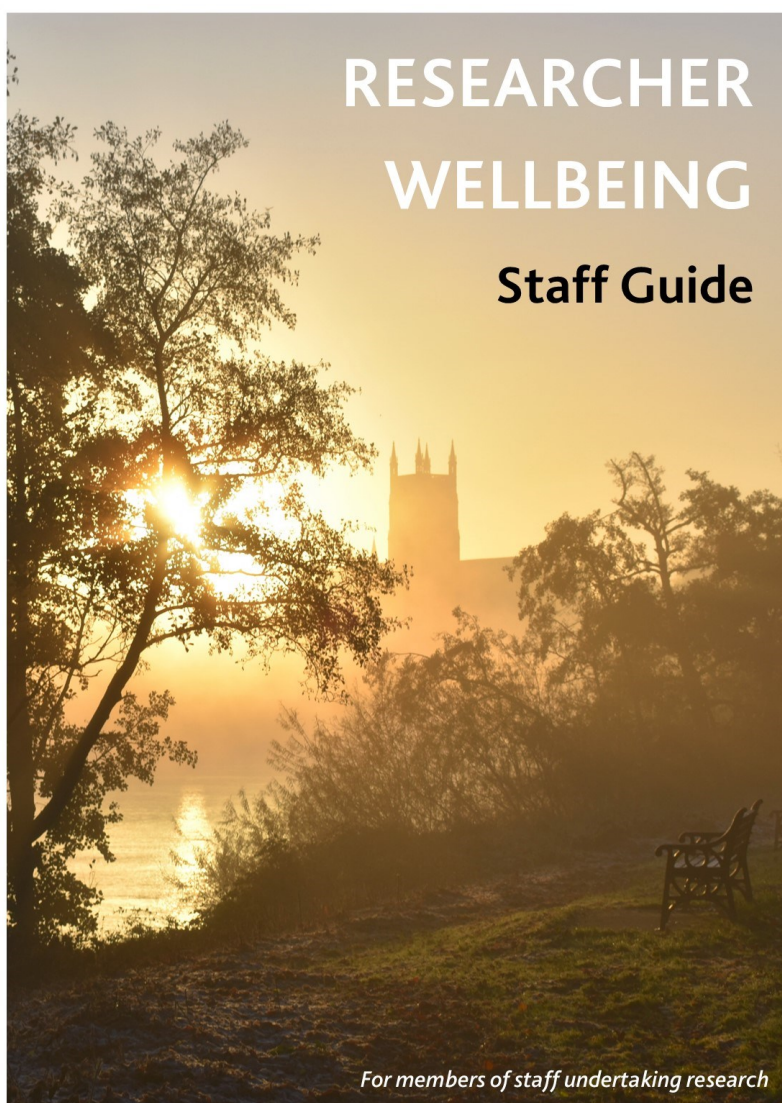


# RESEARCHER WELLBEING

*“To produce world-class research, we must provide a healthy and supportive research environment that allows researchers to flourish.”*

- Vitae, 'Researcher Wellbeing and Mental Health'

As part of the university's commitment to mental wellbeing (as set out in the Strategic Plan) colleagues within the Research Office have developed a 'Researcher Wellbeing Staff Guide'. Internal services, departments, and individual members of staff have all contributed to provide tips and ideas to support researchers at all career stages think about their wellbeing as a researcher. The guide also contains details of relevant training, resources and support services.



October 2022

RESEARCH |  University of Worcester



Staff can access the guide on the '[Researcher Development Programme—staff](#)' organisation page on Blackboard, under the Researcher Wellbeing tab.





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