

Keeping you in touch with the
School of **Psychology and Sport Science**



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MIND AND BODY

WINTER 2024 | ISSUE 2.



CONTENTS

- 03. Mind and Body
- 04. School of Psychology and Sport Science News
- 10. Alumni News
- 14. Student News
- 18. Placement and Employability News
- 20. Postgraduate Research News
- 24. Events
- 26. Research and Impact Highlights
- 36. Grant Success
- 38. Wishing you the best

Edited by
Dr. Paloma Mari-Beffa



MIND AND BODY

The newsletter of the School of
PSYCHOLOGY AND SPORT SCIENCE.

The latest news from Psychology
and Sport Science, staff and alumni.

MIND AND BODY WINTER 2024

If you have any news you would like us to include in the next issue,
please send it to pbeffa@bangor.ac.uk

Welcome to the Winter edition (issue 2) of the School of Psychology and Sport Science



The first issue was a great introduction to the newly formed and newly named School, so this edition has a lot to live up to. Issue 2 captures the diversity of our work, the breadth of our portfolio, and the global reach and impact of our research, scholarly activity, and academic expertise and influence.

Our continual pursuit to be recognised globally as a world-leading School that interrogates body and mind in the pursuit of better health, well-being, and performance for our local, national, and international communities has been epitomised by our work being celebrated and recognised across the world from Bangor to Brazil. In this newsletter we showcase the School's contributions to areas of stress management, literacy advancement, sports safety, neurofeedback, school-based bullying prevention, and performance psychology. Our desire to have more influence and profile in the sector is also recognised by the appointment of Professor Michaela Swales as the first President of the World Dialectical Behaviour Therapy Association (WDBTA), the hosting of the Mindfulness Conference in the summer, and the escalation of our strategic intent to infiltrate the international conference scene with a School of Psychology and Sport Science presence.

This issue also provides a lovely sense of reminiscence from our alumni and some insights into the alumni reunion. You'll also find a section that captures our drive around employability to foster real-world confidence in our students, provide a transformative learning experience, impactful placements and outreach initiatives, and celebrate their respective achievements. This snapshot of activity underscores our role in shaping individuals, fostering academic growth, practical learning experience, advancing applied knowledge and positively impacting society.

I hope that you find that this newsletter continues to demonstrate our desire to bridge academic expertise with real-world applications, advancing societal well-being and high-performance achievements. Enjoy...

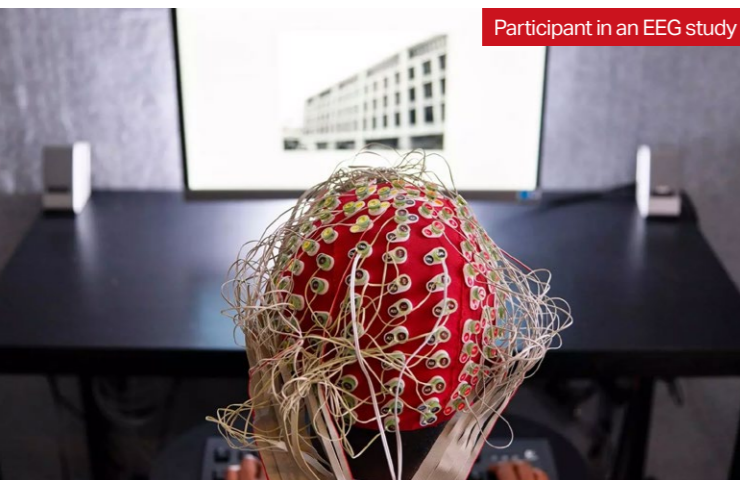


Festive wishes
Dave

Professor Dave Richardson
Head of School

SCHOOL OF PSYCHOLOGY AND SPORT SCIENCE NEWS

Bangor University ranks among most in-demand UK psychology departments for 2023/2024



Participant in an EEG study

Bangor University's psychology department has been named as one of the top five most searched-for psychology departments in the UK.

Postgrad Solutions Ltd, the company behind the global postgraduate education portal Postgrad.com, announced rankings for the most in-demand UK psychology departments for postgraduate courses in 2023/2024.

Ranked fifth in the UK, Bangor University's psychology department has proven to be a top choice for postgraduate students, further solidifying its reputation for delivering high-quality education and research opportunities in the field of psychology.

Professor Dave Richardson, Head of School said, *"Reaching the top five position reflects both the strength of our research, the innovative postgraduate programmes we offer and the dedication of our team. It's rewarding to see that postgraduate students recognise this and are seeking out opportunities at Bangor."*

The data behind these rankings were compiled using Postgrad.com's bespoke algorithm, which combines several metrics to capture the level of interest from prospective postgraduate students.

The key factors influencing the rankings included:

- Search-term frequency from Postgrad.com's search box
- Direct traffic to psychology department listings from organic searches
- The total number of views on each university's profile on Postgrad.com over the past 12 months

These rankings are unique in that they are derived entirely from the perspective of postgraduate students. This contrasts with traditional university league tables, which tend to focus on undergraduate programmes. By prioritising postgraduate-specific data, Postgrad.com's rankings offer valuable insights into the current demand for psychology departments and their postgraduate programmes across the UK.

Rob Houghton, Co-Founder of Postgrad Solutions, highlighted the importance of these findings, *"Psychology remains a top postgraduate choice, and students are eager to find the perfect course. We are excited to highlight the results of our research with these five schools, consistently the most searched for on Postgrad.com. Each department boasts unique strengths and a fantastic range of courses, catering to this ever-evolving field."*

International workshop explores sustainable transitions for an equitable future

A pioneering workshop focused on multidisciplinary approaches to sustainable transitions took place on the 28th of August at Bangor University, bringing together researchers and academics from across the globe to discuss pathways towards a more balanced and equitable future for land, people, and culture. The event, held in collaboration with Places of Climate Change (PlOCC), the Department of Psychology's Institute for Wellbeing Research at Bangor University, and Universidade CEUMA in Maranhão, Brazil, aligns with the British Academy's 'Just Transitions' funding call under their "Knowledge Frontiers: International Interdisciplinary Research Projects 2025."

The workshop, led by Professor John Parkinson commenced with a buffet lunch, providing participants with an opportunity to network and exchange ideas before engaging in research presentations and discussions. The academic disciplinary mix included psychology, anthropology, linguistics, forestry, earth science, health economics, history, engineering and possibly more! The keynote presentation was delivered by Professor Carlos Tomaz from Universidade CEUMA, who offered insights into the university's research on the Amazon biome, emphasising the importance of sustainable practices in one of the world's most critical ecosystems.



Workshop participants

In reflecting on the importance of the workshop, **Prof Carlos Tomaz** said: *"It was a good opportunity to exchange expertise and try to build a long-term collaboration between Bangor and CEUMA. This further consolidates the relationship between Wales and Brazil in terms of environment, health and sustainability, including not only research but also international education and mobility between students and researchers from both sides. Universidade CEUMA is the biggest private university in Northern Brazil having over 30,000 students and is located in a transitional area between tropical Amazonia and the savanna in North East Brazil. This area makes a very good opportunity for research and education on natural ecosystems and the impact of humanity."*

The afternoon session featured a series of 10-minute presentations on diverse topics, including the spatial and temporal variation in Amazon deforestation, the role of discourse and place attachment in climate change research, and the impact of green and blue spaces on human health and wellbeing, with case studies from North Wales and beyond. Notable presentations also explored learning from energy transitions in Wales and the US, the use of wireless sensor networks to empower Vietnamese farmers, and innovative research on peatlands to combat greenhouse gas release.

Following the presentations, a plenary discussion allowed participants to engage in a dynamic dialogue about the challenges and opportunities for sustainable transitions. The workshop concluded with a session dedicated to identifying emergent themes, future opportunities, and actionable steps for ongoing collaborations between Bangor University and Universidade CEUMA.

In concluding the workshop, **Prof John Parkinson** said: *"Bangor University is a centre of excellence for research into sustainability, broadly defined, and we have found an excellent partner in Universidade CEUMA which has complimentary research interest and strengths. I hope this workshop provides a solid foundation for future research opportunities and collaborations. A key ambition for the partnership is to deliver a symposium next year at the UN COP 30 summit in Belém, Northern Brazil."*

For further information or to express interest in future events, please contact Professor John Parkinson at Bangor University.



Deputy Vice Chancellor, Oliver Turnbull; Prof Carlos Tomaz and Prof John Parkinson.

Professor Michaela Swales elected as first president of World Dialectical Behaviour Therapy Association

Professor Michaela Swales, Programme Director of the North Wales Clinical Psychology Programme in the School of Psychology and Sport Science, has been elected as the first President of the World Dialectical Behaviour Therapy Association (WDBTA). With over 30 years of experience in Dialectical Behaviour Therapy (DBT), Michaela brings a wealth of expertise to this prestigious role.

She is supported by a diverse and talented Board of clinicians and researchers from eight countries, representing four of the WDBTA's five chapters. Each Board member plays a leadership role within their regional chapter or contributes to expert sub-groups focused on key areas such as research, treatment integrity, training, implementation, and dissemination.

Reflecting on her appointment, **Michaela** said: *"My own journey in DBT began over thirty years ago when, as a newly qualified clinical psychologist, I was fortunate to attend the second-ever Intensive Training led by Dr. Marsha Linehan. If you had told me back then that I would one day be President of a global DBT association, I would never have believed it!"*



Professor Michaela Swales

Professor Dave Richardson, Head of Psychology and Sport Science, expressed his congratulations: *"Congratulations to Michaela on getting elected to this role. As she celebrates 32 years at Bangor this month, it's clear that she is an invaluable asset to our School. Her appointment as President is a true testament to her dedication and remarkable contributions to the field of DBT"*.

Looking forward, Michaela aims to build on the achievements of the WDBTA, focusing on furthering the work of the Association's standing committees, promoting diversity and inclusion, and fostering collaboration across regions. Exciting plans for the first Worldwide DBT Congress in 2026 are already in motion, offering a unique opportunity for global engagement and innovation in DBT.



Bangor hosted a rich and inspiring International Mindfulness Conference

It was such a delight to host the **International Conference on Mindfulness at Bangor University in August 2024**, and we're pleased to share this **short video of highlights which captures a sense of the richness, diversity, quality, joy, tenderness, connection and sense of community experienced at the ICM:2024.**

With participants and speakers joining both online and in person in Bangor, this conference was truly international and enabled research and practice to be shared from across the world. The programme was incredibly rich and inspiring, and we are planning to make the recordings of presentations available to as wide an audience as possible as well as to find ways to continue the important explorations and conversations that were seeded at the conference.

New book on "Myths of Sport Performance"



Book launch

IPEP staff member **Vicky Gottwald**, along with IPEP alumnus **Dr Robin Owen** and UK Coaching's **Marianne Davies** recently published a book chapter in the popular science **'Myths of Sport Performance'** book.

The book aims to demystify some of the most pervasive myths, misconceptions and realities surrounding the how, what and why of improving performance in sport. This chapter was entitled 'Harnessing the power of attention: exploring 'focus of attention' theories, practice, and myths' and focuses on myths surrounding coaching instructions.



Success for sport and exercise psychologists at international conferences

From the 14th to the 20th July, a team of 14 staff and postgraduate researchers from the Sport Science department's Institute for the Psychology of Elite Performance (IPEP) attended the European Federation of Sport and Exercise Psychology (FEPSAC) Conference in Innsbruck, Austria. This flagship event happens every two-years and attracts over 1,000 sport and exercise psychology researchers and practitioners from around the world. The theme of this year's conference was "Performing under Pressure."

Renowned for their world-leading research and applied practice in pressure and performance, IPEP made a significant impact at the conference. The team delivered several invited sessions, including three symposia discussing the psychophysiology of performance under pressure, attentional focus and performance, and bio/neurofeedback training. Additionally, they conducted a workshop offering practical solutions for reducing public speaking anxiety.



SPSS Attendants at FEPSAC

IPEP also delivered eight oral presentations and ten poster presentations of their cutting-edge research spanning mental health in elite sport, the interactive effects of personality on behaviour, the psychology of ultra-endurance running, the effects of leaders on team performance, and individualized approaches to talent development.

The conference concluded with a closing ceremony and awards, where IPEP postgraduates achieved an incredible 1-2-3 finish. **Alex McWilliam** won 1st prize in the "Young Practitioners" competition for his work titled "The Improv Self-Efficacy and Skills Programme: A Novel Treatment to Reduce Public Speaking Anxiety." **Joe Varga** received 2nd prize, and **Charlotte Welch** received 3rd prize in the "Young Researchers" competition for their presentations titled "Maximizing Performance Under Pressure: A Comprehensive Multidisciplinary Approach to Individualizing Pressure Training in Elite Sport" and "Running on Anxiety: Emotion Dysregulation Drives Exercise Dependence in Alexithymic Ultrarunners," respectively.



Charlotte Welch, Alex McWilliam and Joe Varga

These prestigious awards follow other recent successes for the group. In the ECSS conference in Glasgow, **Marley Willegers** and **Michiel Ewalts** were entered for the ECSS Young Investigator Award. There were 278 abstracts submitted for consideration of which 66 oral presentations and 21 poster presentations were selected to be assessed at the conference. After this, 10 finalists were selected and the top four were invited to present to the whole congress on the final afternoon, where **Marley Willegers** won 1st Prize in the European College of Sport Sciences' 2024 "Young Investigator" competition for his research entitled "Shelter Me from the Storm: An Attachment Perspective of Individuals' Relationship with Their Sporting Activities,". In May, **Alex McWilliam** received the "Best Oral Presentation" award from the European Network of Young Specialists in Sport Psychology for his public speaking anxiety research presented at their 2024 conference in Estonia. Additionally, **George Ely** received the 2024 Bronze Drapers' Company Medal for outstanding contribution to Bangor University. His research, in partnership with the England and Wales Cricket Board, explored the mental health of professional cricketers nationwide, resulting in policy and practice changes to better support player mental health. Awards were also presented to colleagues **Dr Sophie Harrison (Best Menstrual Cycle Work)** and **Dr Melissa Jones (Best Applied Work)** from Bangor's Institute for Applied Human Physiology, at the recent Women in Sport and Exercise Academic Network conference in Portsmouth.

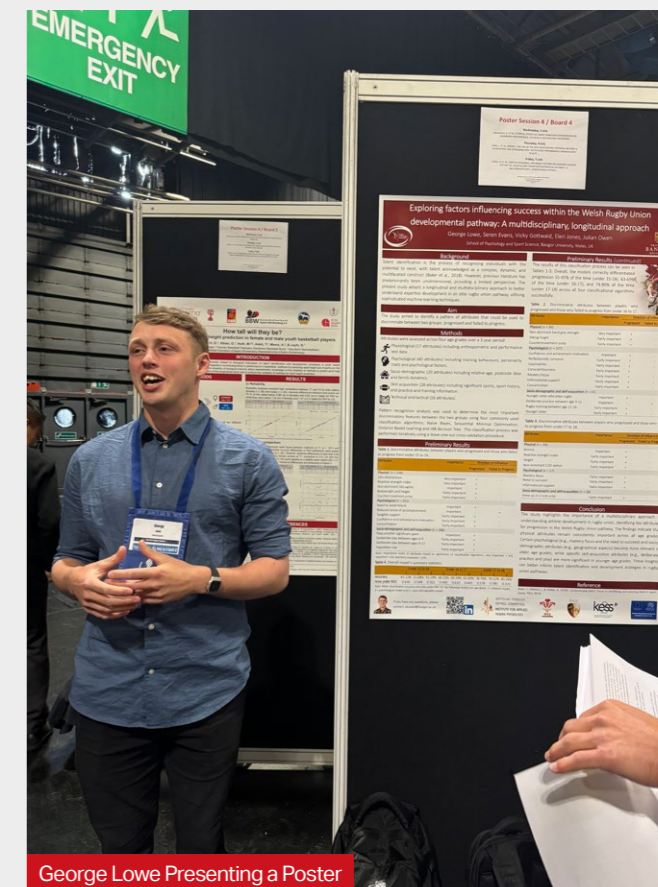


Marley Willegers with the award

These achievements build on the University's highly successful UoA24 (sport and exercise sciences) submission to REF2021, where Bangor was ranked in the **Top 5 in the UK** with **100% world-leading or internationally excellent research**.

The FEPSAC congress marks the culmination of a highly successful year of research and impact work. Congratulations to all members of the group for their hard work, and thanks to the wider Department of Sport and Exercise Science and the School of Psychology and Sport

Science for their support. These achievements and collective works further establish Bangor as a world-leading centre for sport and exercise psychology and sport science research.



George Lowe Presenting a Poster



Sophie Harrison giving a talk

ALUMNI NEWS



Letter from an Alumnus

By Dr. Ashleigh Johnstone, Lecturer in Psychology at Arden University

I am one of those people who turned up in Bangor for a BSc in Psychology (with Neuropsychology) and then just forgot to leave. In 2012 I arrived in Bangor for my undergraduate degree, then decided to stay for a Masters and PhD, eventually receiving my PhD in 2021.

Following my PhD, I took what I like to call a detour into an industry role, working as a Product Specialist at Gorilla, the online experiment builder. I'm now back in an academic role as a distance learning Lecturer in Psychology at Arden University and enjoying a teaching-focused career working directly with students.

When Dr Paloma Mari-Beffa asked me to write this column, I found myself reflecting fondly back on my time as a Bangor University student - and not just because Paloma was my MSc & PhD supervisor! So much of who I am as an academic has stemmed from my experiences as a student in Bangor, and so I thought it'd be fun to share with you three key things that Bangor taught me.

Dr. Ashleigh Johnstone



1. The power of fun teaching

When I look back at my time in Bangor, one of the first things I think about is the fun that I had. The classes that I remember most are the ones where we had fun and there was a healthy dose of humour injected into the content. I remember the times when the courses felt challenging and I wasn't sure if I'd make it to the end, and the way the staff helped to re-energise and re-motivate me by reminding me how enjoyable psychology can be. As a lecturer now, I draw upon my experiences as a Bangor student as a reminder of the power of having fun in education to keep students going.

2. How to have the confidence to try new things

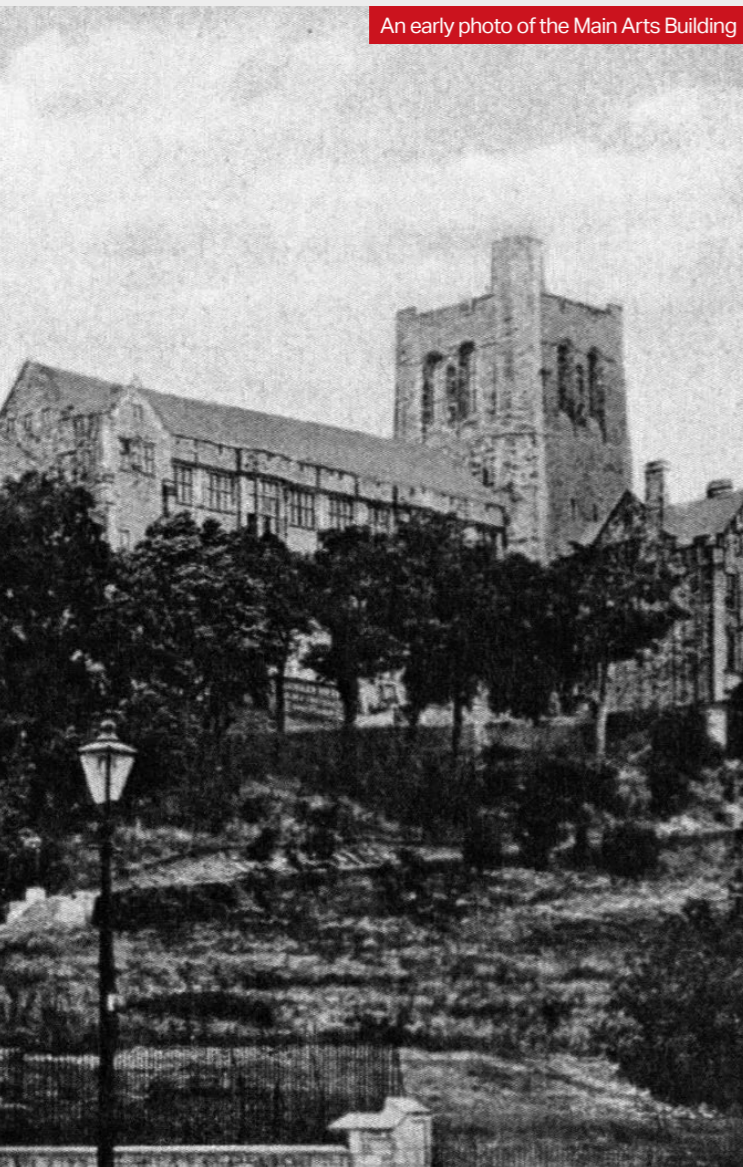
I remember being a first-year undergrad who was full of enthusiasm but had a distinct lack of self-confidence. In fact, in my first semester I texted my dad and told him I wanted to leave and go home because I'd heard that we had to do presentation classes! Luckily my dad knew better and encouraged me to stick it out for a little bit longer. With support from my new friends and Bangor staff, I ended up enjoying those presentation classes and ended up mentoring other students who also experienced public speaking anxiety. This taught me that there's so much we can achieve if we're willing to try doing things (even if they scare us).

3. Following your passions

This summer I was one of many people who were super excited about Taylor Swift's Eras Tour coming to the UK and found myself thinking about the psychology behind Taylor's popularity and the tour. I ended up providing commentary for media outlets about the psychology of Taylor Swift and it was so much fun! This is something I would never have considered if I hadn't seen so many staff at Bangor take the things that they're excited about and view it from a psychological perspective. It really inspired me to follow your passions and enjoy yourself with your work!

140th Anniversary Alumni Reunion

An early photo of the Main Arts Building



The 13th and 14th of September 2024 saw over 140 alumni return to Bangor to celebrate the 140th anniversary of the University. The programme for this special reunion started with a pub quiz in the Ffriddoedd site's student bar, Bar Uno, with alumni teams battling it out over four rounds of General Knowledge, History of the University, Name the alumnus / honorary fellow and Places in Bangor. Congratulations to 'SABE all your kisses for me' on their victory!

Saturday began with a welcome from the Vice-Chancellor, Professor Edmund Burke, before alumni heard about the exciting new North Wales Medical School from Prof. Mike Larvin and the current activities of the Students' Union from their President, Nida Ambreen.

Alumni were then invited to the University's magnificent Council Chamber to attend the unveiling ceremony of the double portrait of botanists Prof. David Thoday and Gladys Thoday MA, who both had a great impact on Bangor University, by artist Meinir Mathias.

Alumni then had the opportunity to meet our School, exploring our facilities and hearing about the research taking place by staff and students.

Alumni Visit to the Neuroimaging Unit



Here are some of our guest profiles:



Dr. Peter Woods (Psychology 1970, MSc, 1973 and PhD, 1976)

Peter is a Retired Consultant Clinical Psychologist.

He held the role of Assistant General Manager (Learning Disability Service Development) at Gwynedd Community Health Unit and became its Clinical Director of Psychology and Learning Disability Services. He was the Head of Psychology Services and Assistant Clinical Director (LD and Psychology) for the North West Wales NHS Trust and retired in 2016, from the Betsi Cadwaladr University Health Board as Director of Clinical Psychology and Psychological Therapies.

Peter is the Chair-Elect of the British Psychological Society's Special Group for Psychology, Health and Social Care and is a member of the Senate of the BPS.

In 2000, Peter and his late wife Susannah bought an old Victorian Rectory, Neuadd Lwyd, in Penmynydd, Ynys Môn, and developed it into a five-star Country House Hotel, which won a number of accolades. The business has since been sold.

Peter attended 2023's RLPO pre-concert reception, the House of Lords Alumni Reception and the 140th Anniversary Bangor University Choral concert in April.



Prof. Chris Cullen (Psychology, 1971)

Emeritus Professor of Clinical Psychology, Keele University.

Christopher Noel Cullen is a British psychologist who specialised in the field of learning disability.

Cullen completed his PhD at Bangor University which at that time was the centre of radical behaviourism and its application to clinical issues. After working for a short period as a research assistant he trained in clinical psychology and developed an expertise in working with people with learning disabilities. He was appointed to the Chair of Learning Disabilities at St. Andrew's University and then, in 1995, moved to Keele University as both Professor of Clinical Psychology and Clinical Director for Psychological Therapies for North Staffordshire. He retired as emeritus Professor of Clinical Psychology.

He was active in the British Psychological Society, of which he was the Chief National Assessor. He was elected President of the Society in 1997. His presidential address was on the topic of behaviour analysis in work and therapy. He was also elected President of the British Association for Behavioural and Cognitive Psychotherapies.

He has a Lifetime Achievement Award from the British Psychological Society and is an Honorary Fellow, British Association for Behavioural and Cognitive Psychotherapies.



Marie-Pascale Onyeagoro-Okonkwo (Clinical and Health Psychology MSc, 2022)

Originally from Nigeria, Marie-Pascale is a Healthcare Assistant with Betsi Cadwaladr University Health Board, supporting patients with Mental Health and Learning Disability. She is also owner of Baram Afro pop-up kitchen in Bangor.

In October 2023, Marie-Pascale took part in the University's Black History Month celebration, performing a monologue 'I am African Everywhere'.

Alumni Visit to the Wellbeing Room



STUDENT NEWS

Congratulations

To all our graduating students of **Summer 2023-24**



Student Awards

Department of Sport and Exercise Sciences:

- Sarah Smythe Award for the Highest Overall Grade across all SES Undergraduate students:
Holly Aitchison
- Undergraduate Project Award for the highest scoring Research Project:
Marit Dekker
- Undergraduate Dissertation Award for the highest scoring Dissertation:
Holly Skelton
- School Citizenship Prize for outstanding contribution to the Department, Class of 2024:
Andrew Ayshford
- Top Graduate studying through medium of Welsh:
Tash Matthews
- Top Graduate in MSci programmes, Class of 2024:
Andrew Ayshford

Department of Psychology

- Best Project Student Award, Class of 2024:
Wyn Yan Loh
- Best BPS Project Student Award, Class of 2024:
Wyn Yan Loh
- Fergus Lowe Prize for Top Graduating Student, Class of 2024:
Gerda Kabailaite
- Kevin Larkin School Citizenship Prize for outstanding contribution to the Department Class of 2024:
Victor Tindle
- Top Graduate studying through medium of Welsh:
Sion Elfyn
- Top Graduate in MSc in Counselling, Class of 2024:
Jack Cunliffe

Bangor University awarded Honorary Doctor of Laws (Hon LLD) for public service to Sir Alan Bates, former sub-postmaster, during our summer graduation ceremony



Sir Alan Bates with Dr. Tracey Lloyd

Despite being an unlikely campaigning hero, Sir Alan Bates, a former sub-postmaster from Llandudno, has dedicated two decades to advocating for justice and clearing the names of Post Office managers involved in what is considered to be the most extensive miscarriage of justice in UK history.

Sir Alan founded the Justice for Sub-postmasters Alliance (JSFA) in 2009, playing a leading role in the legal battle to seek justice for those whose lives were adversely affected and to ensure compensation for those wrongly accused.

With five others from the JSFA, he took the Post Office to court on behalf of 555 claimants.



Dr. Paloma Mari-Beffa, Sir Alan Bates, and Prof. Tim Woodman

Published case studies from the association of national teaching fellows project

MSc Counselling student Luke Sanders recently collaborated with Dr Beverley Pickard-Jones and Professor Fay Short to publish a case study as part of The Association of National Teaching Fellows (ANTF) Gen AI Innovation Project. This project aimed to develop training techniques for future counsellors, and Luke played a key role in its success.

This staff-student collaboration showcases the potential of working with students as partners. It is especially rewarding that it resulted in a published Open Educational Resource, now available to inspire educators worldwide.



sites.google.com/brookes.ac.uk/genaiheteaching/case-studies/6-developing-counselling-skills-through-ai-client-simulation?authuser=0

BSc Sport Science student Mike Morris recently also collaborated with Fay and Beverley on the ANTF Gen AI Innovation Project, contributing a "pearl of wisdom"—a succinct piece of advice on using AI tools to refine student writing skills.

His contribution demonstrates the value of involving students in educational development, showcasing practical ways in which technology can enhance the learning experience. This contribution aligns with Bangor University's commitment to using technology to enrich and support student learning.



sites.google.com/brookes.ac.uk/genaiheteaching/pearls?authuser=0



Dr Beverley Pickard-Jones



Luke Sanders



Mike Morris

Psychology students selected to co-create a mental health app

A group of six students from the School of Psychology: Nathaniel Hesketh, Amina Mohammad, Aya Machmachi, Pinja Marcos Erikivi, Ryan Welham and Katie Ratcliffe have been selected to take part in an exciting hackathon to co-design a mental health app, in collaboration with BfB Labs who provide digital therapy for a new generation. The workshop will also involve students from Computer Science and Product Design, bringing together different disciplines to encourage innovation and practical collaboration.

Facilitated by BfB Labs, this hackathon will provide our Psychology students with invaluable insight into how their skills can be applied practically within the digital and mental health sectors. By collaborating across disciplines, students will gain first-hand experience in the co-design process, contributing to a meaningful project that aims to enhance mental health support through technology. This opportunity reflects Bangor University's commitment to hands-on learning experiences that bridge the gap between academic study and real-world applications.



Students co-design a Mental Health App

My Graduate Career Week 21st-25th October 2024

My Graduate Career Week provides an opportunity for students to focus on their skills, experiences, and their future. Events during the week allowed students to meet employers from a range of work sectors, listen to industry experts and Bangor University alumni shared their experiences of developing their career. Students were also able to access expert advice on career planning, networking, and recruitment practices.

Thank you to everyone who joined us at the Careers & Employability Fair. It was great to see so many of you connecting with employers and exploring new opportunities. We hope it helped you take the next step in your career.

Dr. Rudi Coetzer, Dr Carolien Lamers and Prof. Fay Short



PLACEMENT AND EMPLOYABILITY NEWS

Did you know that undergraduate students are able to enrol on optional work placement modules?

Students studying with us have taken the opportunity to enrol onto a gap-year degree where they may go on placement for a full year between their second and third year. Alternatively, they could choose to enrol on the free short-term work placement module at any point in an undergraduate degree. This opportunity allowed them to work at any time of the year in their own time, and have it recognized as part of their degree. Placement modules are self-study and can be done at the students own pace, with support from a dedicated module lead.

Dr Alex Baxendale (Psychology) A.Baxendale@bangor.ac.uk

Dr Gavin Lawrence (Sports Science) G.P.Lawrence@bangor.ac.uk

Here are just some of the current placements are students are undertaking:

Hasib Sarker

"I am currently working with the Domestic Abuse Safety Unit in North Wales, where I have been involved in various aspects of supporting survivors of domestic abuse. From assisting with safety planning to coordinating community outreach initiatives, every day presents new opportunities to make a difference in the lives of those affected by domestic violence. Some of my favourite moments during this placement include participating in awareness campaigns within local communities and witnessing firsthand the impact of our intervention efforts on improving safety and well-being."



Shannon Wain

"I had the privilege of spending my placement year working as an Assistant Psychologist within a Community Mental Health Team in West Wiltshire. My role was incredibly varied, allowing me to shadow a range of professionals, including clinical and neuropsychologists, where I observed cognitive assessments and multiple therapeutic approaches tailored to various clinical presentations. I also spent some time on one of the inpatient wards, giving me valuable insight into the complexities of acute mental health care and how psychology works within the NHS."



Molly Johnson

"I am currently working in a Secondary school in Cheshire as a Learning Support Assistant. I support students who may be suffering with various social, emotional and mental health issues. Creating relationships and seeing the progress of the different students that I support on a day-to-day basis is one of my favourite aspects of the placement. Knowing that I can help to make a difference and being able to learn from others around me and apply that knowledge both during this year and in the rest of my degree and the future is rewarding. The team I work with are incredibly supportive and whilst I will be sad to leave at the end of the year. I know I have gained so much experience and learnt many new skills from working with them. I love that the fast-paced atmosphere of the school makes each day different and interesting, keeping me on my toes and adapting in a constantly changing environment."



Bangor community fund supports sustainability summit on Yr Wyddfa

Yr Wyddfa is Wales' busiest peak. Hundreds of thousands reach the summit each year. Unfortunately, like many popular destinations in Eryri National Park, the mountain has become victim to plastic pollution. For example, a scientific study by CGG of soil samples estimated that up to 5% of Yr Wyddfa's summit is polluted by micro-plastics. Likewise, this year alone, volunteers have removed around 1.3 tonnes of rubbish from the mountain – equivalent to 700 refuse sacks.

In response to this, Eryri National Park Authority (ENPA) has been working with Bangor University academics to find solutions to these challenges, alongside appointing a 'plastic free' officer who was tasked to work with a coalition of the willing to remove non-reusable plastics from the mountain.

One of the key initiatives involved collaboration with Professor John Parkinson, a leading expert in behavioural psychology, and his MSc Psychology students, Harry Loraine and Conor Fitzpatrick. Together, they have undertaken a series of projects aimed at understanding and changing the littering behaviour of visitors to the national park.

In an initial project which featured on ITV's Coast and Country, Professor Parkinson revealed that littering wasn't simply a matter of people not caring.

POSTGRADUATE RESEARCH NEWS

Great success of our research conference

The Annual School of Psychology and Sport Science 2024 Research Conference was a great success. It featured 15 oral presentations, 9 posters, and a super fun keynote Research Blitz session comprising rapid fire talks from Prof Tim Woodman, Prof Guillaume Thierry, and new members of staff, Dr Melissa Jones and Dr Tirso Alam Gonzalez. There was a great turnout, including staff, Postgraduate Research students, Master's students, and Undergraduate interns - and the lunch was delicious!

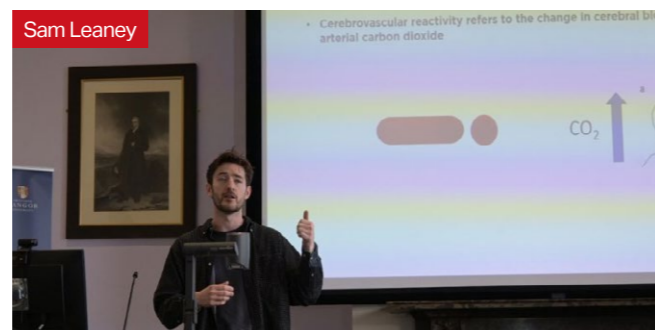
Particular thanks go to Liam Hardman, Irina Giurgea and the other PGR reps for their organisational efforts, and also Dr Vicky Gottwald and Dr Ayelet Sapir for supporting the event. Thanks to all the chairs and everybody who asked insightful and constructive questions. And thanks to Yufen Wei for the fabulous photography!

On a final note, congratulations to the prize winners, who gave exceptionally high-quality presentations and are wholly deserving:

Best Poster: **Steffi Studt**

Best 5- minute presentation: **Kanza Jamil**

Best 10-minute presentation: **Charlotte Clare**



Bangor academics and PGRS informing selection protocols at GB beach sprint rowing's testing and national team selection events



Rowing has recently made Olympic history with the inclusion of Beach Sprints at the Los Angeles 2028 Olympic and Paralympic Games. Beach sprints is viewed as the BMX of rowing: a fast paced sport, full of excitement and jeopardy. As an Olympic sport in its infancy, relatively little is known about optimal talent selection and development protocols.

As part of an ongoing collaborative project involving IPEP (Dr Vicky Gottwald, Prof James Hardy) and IAHP (Dr Julian Owen) staff, along with two PhD students (Jack Bickley and Ben Owen), we have been involved in informing selection protocols at GB Beach Sprint Rowing's testing and National Team selection events. This has contributed to Team GB rowers securing two Gold medals at this year's World Championships (Genoa, Italy) - one in the Quads event and another in the Para PR3 event).



PGR student is awarded International Science Partnerships Fund (ISPF) to evaluate research on preschool enhancement in rural Kenya

Brian Murithi Humphrey, a Postgraduate Research student supervised by Prof. Helen Henningham, is working on a cluster randomised trial of a preschool enhancement programme in Tharaka Nithi County (rural Kenya) as an intervention supervisor. The trial involves 119 schools (60 intervention, 59 control) and the research aims to increase the quality of the preschool educational environment through a teacher-training initiative and provision of a low-cost, locally made classroom kit of teaching and learning materials.

Brian has been awarded funding through ISPF to conduct a qualitative evaluation of the programme. This involves exploring the perspectives of headteachers, preschool teachers, supervisors and County officials to identify the acceptability, feasibility, and perceived effectiveness of the intervention, the enablers and barriers to implementation and suggestions for improvement.



Congratulations to our new doctors

Adaptation of an e-health intervention "isupport" for carers of people with rare dementias

Author: Dr. Bethan Naunton Morgan PhD Psych

Supervised by Prof Gill Windle & Dr Carolien Lamers.



iSupport is an online intervention developed by the World Health Organisation to support dementia carers. It consists of educational resources on dementia as well as practical caring advice and the importance of selfcare. My research will be adapting the iSupport program for carers of people with rare dementias, and I will be working with the Rare Dementia Support (RDS) charity as a part of their RDS Impact study.

Translation of empirical findings from the social timing of interactions, to assess and therapeutically address social reciprocity difficulties in autistic spectrum disorder (asd) and to help delineate its diagnostic boundary

Author: Dr. Judit Elias Masiques - PhD Psych

Supervised by Dr Dawn Wimpory & Prof Kami Koldewyn.



Social Timing, the temporal synchronization of interactions, is critical in parent-infant dynamics and is notably impaired in Autism Spectrum Disorder (ASD). ASD, a neurodevelopmental condition, is characterized by difficulties in temporal synchrony, reduced shared attention, and challenges in social engagement. This thesis explores shared attention and temporal synchrony in naturalistic interactions using a novel micro-coding tool: Synchrony of Communication in Autism: Evaluation by Micro-Analysis (SCAEMA). SCAEMA assesses Matching Synchrony (gaze synchrony), Sequential Synchrony (vocal response latency), and Bidirectional Synchrony (time series cross-correlation analysis). This research provides key insights into temporal synchrony in TD and ASD, highlighting unique developmental trajectories and the potential for interventions like MIT.

Dialogic book-sharing and its impact to parental language and behaviour

Author: Dr. Lauren King - PhD Psych

Supervised by Prof Judy Hutchings & Dr Margiad Williams.

An exploration of mental health in elite sport: A case study of cricket

Author: Dr. George Ely - PhD Sports Sci

Supervised by Prof Tim Woodman, Prof Ross Roberts & Dr Eleri Jones.



Athlete mental health is increasingly recognized as vital in professional sports. Despite its importance, research remains limited, particularly in cricket, where anecdotal reports of mental health struggles among high-profile players suggest a potential crisis. This thesis addresses the need for foundational research into cricketer mental health.

Chapter 1 reviews mental health in sports, particularly cricket, emphasizing the limitations of prior research and the pandemic's effects, which increased anxiety and depression, and reduced wellbeing globally.

Chapter 2 explores bio-secure bubbles used during the pandemic, finding they elevated anxiety and depression while reducing wellbeing, with females reporting greater negative impacts. Basic psychological needs mediated these effects.

Chapter 3 explores cricketer wellbeing using focus groups. Energy and balance were found to be core components of player wellbeing whilst relationships were found to significantly impact cricketer wellbeing. Chapter 4 examines cricketer mental health longitudinally, dismissing the notion that cricketer mental health is in crisis, identifying a temporal component of athlete mental health and proposing a complex relationship between alcohol and other mental health markers.

The thesis integrates these findings to highlight theoretical, methodological, and applied implications, concluding with recommendations for future research into cricketer mental health and wellbeing.

The interrelationships of physical activity, vascular health and kidney function in patients living with chronic kidney disease

Author: Dr. Mark Davies - PhD Sports Sci

Supervised by Prof Jamie Macdonald, & Dr Aamer Sandoo.

Chronic Kidney Disease (CKD) is a progressive condition linked to significant morbidity, mortality, and elevated cardiovascular risk. Vascular dysfunction may play a critical role in this association. While pharmacological options are limited, exercise has emerged as a potential intervention to improve vascular health and slow kidney function decline. This thesis explores the relationships between physical activity, vascular health, and kidney function in CKD, identifying potential targets for intervention.

Chapter 2 presents a systematic review and meta-analysis examining the impact of exercise on vascular health in CKD patients. Meta-analysis of randomized controlled trials revealed improvements in arterial stiffness, evidenced by reduced pulse wave velocity and augmentation index. However, no consistent improvements were seen in endothelial-dependent dilation, with heterogeneity attributed to population and exercise program differences.

Chapter 3 features an observational study analyzing the effects of reduced kidney function and habitual physical activity on vascular function. Cross-sectional results showed that physical activity independently improved large artery and microvessel endothelial dilation, and both physical activity and kidney function correlated with carotid intima-media thickness. However, longitudinally, neither physical activity nor microvessel function predicted kidney function decline.

Chapter 4 details a 12-month exercise intervention. Despite feasibility challenges, no significant differences in kidney function or vascular health were observed between exercise and control groups. Retention and adherence issues highlight the need for refined strategies.

Overall, this thesis underscores the potential of exercise for vascular health in CKD but emphasizes the complexities of improving kidney outcomes through physical activity.

Laura Miles honoured with Student Partnership Impact Award for transformative mental health initiatives

A student whose initiatives have led to institution-wide changes has been awarded a Student Partnership Impact Award from the Staff and Educational Development Association (SEDA).



Laura Miles, a DCLinPsy trainee at Bangor University, received the Award because of the significant impact she has had in Bangor University. Laura developed a student-staff partnership to improve support for mental health difficulties among trainee clinical psychologists. She established a peer support group that advocates for students, addressing the lack of space to discuss mental health issues. The student-staff group conducted a survey to understand experiences and implemented several initiatives, including changes in teaching practices and organisational processes to reduce stigma and enhance support.

The Award to **Laura** stated that, **"Her efforts have led to institutional changes, including a sustainable peer-support space and continuous partnership work to support clinical trainees with mental health difficulties."**

In addition to the changes, Laura also developed a framework to foster a supportive and valuing culture as part of her thesis for her Clinical Psychology Doctorate which she hopes to see published in a peer-reviewed journal. She also hopes to share her findings at conferences and develop a training package which the North Wales Clinical Psychology Programme has adopted, and which may be adopted by other clinical psychology programmes.

"I feel very honoured and humbled to have won this Award and want to recognise the role of my fellow trainees and programme staff in making the progress we have. Moving towards a culture where we value the firsthand experience of mental health difficulties amongst clinical psychologists is a significant paradigm shift that will require ongoing bravery and commitment from the whole psychology community. I look forward to seeing what the next steps are and how future generations of trainee psychologists will build on the work that has happened at Bangor."

EVENTS



Dr. Charlie Wiltshire speaking at the Senedd

Bangor in the Senedd

Dr. Charlie Wiltshire, on the 17th of September, was invited to speak about "Creating a Whole System Approach for Speech Research" at the Senedd, in an event hosted by the British Neuroscience Association.

The North Wales Speech and Language Exchange



The North Wales Speech and Language Exchange (NWSLE) is a new initiative founded by Dr Sam Jones and Dr Charlie Wiltshire, working in collaboration with clinical leads within Besti Cadwaladr University Health Board (BCUHB). The aim of the NWSLE is to foster engagement between clinicians and researchers with a professional interest in speech, language, and communication needs, and to promote Bangor University as a world leader in this field.



The inaugural conference of the NWSLE was held at Bangor University in October 2023 and in October 2024 a second annual conference was held at Wrexham University; a major training centre for speech and language therapists across North Wales.

The day comprised a mix of talks and workshops led by groups including the Royal College of Speech and Language Therapists (RCSLT) and BCUHB. Like last year, the feedback received was brilliant, for instance:

"It is great to see North Wales becoming more vocal about the excellent work that goes on here."

"Great idea to have something like this in the North. I know everything can feel very South-centric, but I don't know of anything like this in the South. I worked there for 14 years and never once met a lecturer from outside SLT."

The organisers would like to thank the School of Psychology and Sport Science for helping fund the inaugural NWSLE conference in 2023. That funding was integral to setting up the NWSLE, which is now a popular, regular, feature on the community calendar.

All slides from the day are available here: osf.io/xuh9p/



RESEARCH AND IMPACT HIGHLIGHTS



Psychology and Sport Science academics ranked among world's most influential scientists

Five academics from Bangor University's School of Psychology and Sport Sciences (SPSS) have been recognised as part of the top 2% of the most influential scientists in the world, according to the latest Elsevier Data Repository update for the "Updated Science-Wide Author Databases of Standardised Citation Indicators."

This prestigious global ranking, which serves as a "scoreboard" for scientists, evaluates researchers based on how often their work is cited by others, their role in research, and their productivity.

The ranking spans 22 fields and 174 subfields and features the top 100,000 scientists or those in the top 2% by citation score (c-score). It includes two types of recognition: career-long impact and single-year impact (recent research).

Those recognised from the School of Psychology and Sport Science have been honoured for their outstanding contributions to psychology and sport science, which includes: **Professor Paul Downing, Professor James Hardy, Professor Paul Mullins, Professor Robert Rogers and Professor Guillaume Thierry.**

Notably, Professor Downing, Professor Rogers, and Professor Thierry were recognised for their influence over the course of their careers, while Professor Downing, Professor Mullins, and Professor Hardy stood out for their recent research impact in the past year.

This achievement underscores Bangor University's pivotal role in advancing scientific knowledge and highlights its global research impact.



From left to right: Professor Paul Downing, Professor James Hardy, Professor Paul Mullins, Professor Robert Rogers and Professor Guillaume Thierry.

Michael Mosley's final series: How we showed what happens to your body when you're stressed, and what you can do to better manage stressful situations

Your heart starts racing, your mouth goes dry and sweat beads on your forehead. We've all been there, caught in a moment of stress. When you encounter a situation that threatens your safety, your brain must make a critical decision - how to react to the danger at hand - a phenomenon we explored in the recently aired programme *Michael Mosley: Wonders of the Human Body* on Channel 5, the late doctor and presenter's final TV series. He died in June this year.

Professors Tim Woodman and Jamie Macdonald, with PhD Student and Mountain Guide Calum Muskett, took Michael out of his normal comfort zone to complete an activity with a very high perception of risk – a rock climb in Snowdonia. We then monitored his body to measure his stress response.

To help viewers visualize what was happening inside his body, we monitored Michael's heart rate using a heart rate monitor connected via Bluetooth to a laptop nearby. We also measured his cortisol levels, a marker of the body's longer-lasting stress response, through saliva samples. And to gain deeper insights into Michael's experience, a sports psychologist from our team interviewed and supported him before, during, and after the rock climb.

But knowing what we know about the body's response, how can we use that to help us manage stressful situations? Here's the advice we gave Michael.



3. Be kind to yourself

Although the fight or flight response is generally considered helpful and healthy, the response can be harmful if prolonged over time. Yet many of us will experience such protracted periods of stress in our lives, be it a work, school or in a personal situation. These can result in elevated levels of stress hormones, such as cortisol. Over time this can increase the risk of cardiovascular disease and mental health issues like anxiety.

To keep your stress response in check, it's useful to use strategies that help prevent it from spiraling out of control. These can include using mindfulness techniques and taking part in physical activities. Even eating a healthy diet can reduce the negative effects of stress hormones.

1. Know your body

When your heart starts racing, your breath quickens and you begin to sweat, it's all part of your body's fight-or-flight response. While these sensations can feel unsettling, they're actually your body's natural way of preparing you for action. These responses are crucial. By recognising these changes as normal and beneficial, you can reduce the anxiety that often accompanies them.

A useful strategy is to write down the physical reactions you experience during stress. Before facing a potentially stressful situation, review this list. Remind yourself that these responses are your body's way of helping you perform at your best.

2. Practice makes perfect

The fight-or-flight response varies from person to person and also depends on the circumstances. While one person may experience intense stress in a given situation, another may hardly react at all.

This difference often comes down to experience, self-confidence and the coping mechanisms we use. The good news is that you can train your body and mind to handle stress more effectively with practice.

For example, if you're preparing for an exam, try taking a mock test in a similar environment beforehand. If you have a presentation at work, rehearse it in front of friends or family first.

You can also benefit from psychological skills training, such as visualising success, or using relaxation techniques before stressful events.

4. Seek support

Research shows that having support from peers, family, and mentors can reduce the body's physiological responses to stress. Whether you're seeking advice for a specific upcoming challenge or simply building a strong support network, the presence of others can help lower your adrenaline and cortisol levels during stressful situations. Surrounding yourself with supportive people is a powerful way to manage and mitigate stress.

The potential of understanding and managing the fight or flight response is huge. As we showed in the programme, it could enable athletes to perform under pressure, students to better prepare for exams and employees to handle workplace stress more effectively.

Michael Mosley & Jamie Macdonald

Image courtesy of Huw James.

Designing tools for motor rehabilitation after stroke



Dr Ayelet Sapir, Senior Lecturer in Psychology, leading this work said, *“Stroke survivors face motor impairments that hinder their ability to perform daily tasks. Existing rehabilitation exercises can be repetitive and disengaging without constant clinician oversight. Our goal is to design, manufacture and test prototypes of novel, self-administered rehabilitation tools to hasten the recovery of patients with motor impairments after stroke.”*

Working on the project alongside her is **Dr Gavin Lawrence, Senior Lecturer in Motor Control, Talent Development and Expertise** who adds *“By integrating motor learning principles into the design of these rehabilitation tools, we aim to enhance the recovery process for stroke survivors in a way that is both engaging and effective. These tools will not only facilitate self-directed therapy but also address critical gaps in current rehabilitation practices.”*

Working closely with three Stroke Rehabilitation Centres in North Wales to identify clinical practice and needs; the team will develop and test prototypes on site and collect feedback from both clinicians and patients.

“Stroke rehabilitation poses significant challenges, the establishment of three NHS inpatient stroke rehabilitation units in North Wales marked a significant step forward for stroke patients. By collaborating closely with these units, we can ensure that patient needs remain at the heart of this research” says **Dr. Giovanni d’Avossa**, a neurology consultant involved in the project.

The study will follow three key stages: First, in the needs assessment phase, rehabilitation therapists and stroke survivors will be interviewed to identify their needs and expectations. This phase will also evaluate existing resources and barriers to tool usage, considering factors like cognitive impairments, motivation, engagement challenges, and individual differences. In the second stage, insights from the needs assessment will inform the design and manufacture of prototypes, either developing new tools or adapting existing ones into age-appropriate, gamified rehabilitation tools, with careful attention to functionality, safety, and sensory stimulation. Finally, the prototypes will undergo testing and refinement, using feedback from users to guide improvements for final deployment.

This study is expected to significantly advance stroke rehabilitation by supporting non-supervised practice, allowing patients to take a more active role in their recovery. To encourage widespread implementation, all resources developed will be open source, free from intellectual property restrictions, and easily accessible to rehabilitation units across the UK.

Stroke strikes someone every five minutes in the UK and is one of the leading causes of disability worldwide, with motor impairments, particularly in the upper limbs, making daily activities challenging for survivors. Early, high-intensity rehabilitation is critical for recovery, but limited clinician time restricts the frequency of these sessions.

To address this, researchers at Bangor University are developing novel, self-administered rehabilitation tools that allow stroke survivors to accelerate their recovery independently.

This project, supported by the British Academy’s BA/Leverhulme Small Research Grants Programme, aims to design, manufacture, and test affordable, age-appropriate, and engaging rehabilitation prototypes. Guided by motor learning theories and patient feedback, these tools will empower stroke patients to take control of their rehabilitation outside supervised therapy sessions, improving long-term outcomes and reducing strain on clinical services.

Bangor University secures Welsh government funding to expand literacy programme for primary-aged children

A research team led by Bangor University has received additional funding from the Welsh Government to further develop, expand, and evaluate the RILL intervention for children with reading difficulties.

RILL is a highly effective 20-week programme designed for small groups of primary-aged children, aimed at improving literacy and language skills. Available in both Welsh and English, it specifically targets 7-9 year-olds who require extra literacy support. Initially introduced during the COVID-19 pandemic, RILL is now an established in-class teaching method for both English and Welsh language learners.

What makes RILL unique is its strong evidence-based approach. It has been rigorously tested through randomised controlled trials (RCTs), showing significant improvements in the reading abilities of children, including those from non-Welsh-speaking homes. Children who participated in the programme demonstrated notable growth in literacy compared to those in a control group, proving the programme’s effectiveness in rapidly advancing language and literacy skills.

Professor Manon Jones, who leads the RILL programme, expressed her enthusiasm for the programme’s success. *“The robust evidence demonstrates RILL’s lasting impact on children’s literacy skills in both Welsh and English. Its success in reaching children from diverse language backgrounds highlights its potential to reduce literacy gaps, ensuring every child has the opportunity to improve.”*

So far, the research team has completed multiple RCTs, involving 183 schools across Wales and nearly 700 children. Furthermore, 366 educational practitioners have been trained in the science of reading and the RILL programme. Trials were conducted both during the pandemic (remotely) and post-pandemic, with positive results in both Welsh and English settings.

Schools that participated in RILL have also shared positive feedback. Ysgol Rhosneigr in Anglesey praised the programme for being fun and interactive, noting improvements in pupils’ language skills and confidence. Similarly, Ysgol Abererch in Gwynedd highlighted the programme’s structure, stating that it helped build children’s confidence and improve their writing by expanding vocabulary.

In this next phase of development, the RILL team is collaborating with OxEd & Assessment, a leading provider of educational tools, to create a digital platform, making RILL accessible to even more children across Wales. This collaboration will also allow for further evaluation to explore its broader use for struggling readers in both languages.

Professor Charles Hulme, Emeritus Professor at the University of Oxford and CEO of OxEd & Assessment, expressed his enthusiasm for the collaboration, emphasizing that the programme has the potential to significantly improve children’s reading and language skills, not just in Wales but globally.

Welsh Cabinet Secretary for Education, Lynne Neagle, also praised the programme’s success, stating that every child deserves the best education and expressing confidence that the additional government funding will benefit even more children and young people across Wales.



A mild concussion from amateur sports might not cause cognitive decline – but repeated injuries can



The results showed that one mild concussion during sport did not cause any behavioural or cognitive problems later in life. In fact, those who'd suffered one mild concussion during sport performed a little better on some tests, possibly due to the overall benefits of regularly playing sport. However, as the number of historic concussions increased, this effect disappeared, and performance did decline. Concussions outside of sport showed the same basic pattern – one concussion does not lead to poorer performance, but repeated concussions do.

Basically, no matter how you receive a concussion, the more you get, the greater your risk for a poorer long-term outcome. This is why professional sports people, particularly in contact sports, are at a higher risk of brain injury. The study's findings are complicated. It has a mix of results, split across different groups with different numbers of concussions.

The fact that having one concussion didn't cause cognitive deficits doesn't necessarily mean there is no injury. There is the concept of cognitive reserve, the idea that the brain is resilient enough to take some damage, and still function normally. This is a good thing. It's a bit like how a tyre can still function with a little loss of air. If you reach a point where too much air has leaked out, and the tyre is flat, it doesn't work anymore. In between, you may also notice a change in performance of the tyre.

It's the same thing with any mild injury to the brain. A little bit and your brain may cope. But over time, if you add more injuries, performance declines, and you reach a point where your brain may be "flat". That's why it's essential to "recognise and remove" players from a game after a sports-related concussion. Just having one concussion does not automatically mean you develop problems in later life. However, the more concussions or mild traumatic brain injuries you have, the worse the results are likely to be – whether you are a professional athlete or not.

This study only looked at mild concussions – defined as a head injury followed by loss of consciousness of less than 30 minutes or feeling dazed or confused. More moderate or severe concussions are likely to have a greater effect, especially if these are numerous. Conversely, one mild injury does not reduce all the benefits sport participation can bring for brain health. Factors related to sport participation such as increased exercise and social support are known to have a positive effect on cognition later in life. These, along with many other lifestyle factors – like not smoking, moderate alcohol consumption and eating a healthy diet – may all provide protection from life's little bumps.

This article by Dr Julian Owen, lecturer in sport & exercise physiology and Paul Mullins, Professor in Psychology, is republished from *The Conversation* under a Creative Commons license.



Read the original article here

theconversation.com/a-mild-concussion-from-amateur-sports-might-not-cause-cognitive-decline-but-repeated-injuries-can-238473

A single mild concussion while playing amateur sports does not lead to long-term cognitive decline a recent study has found.

This conclusion may seem at odds with much research on head injury and concussion in sport. However, a closer look at the study shows its findings are not so different after all: experiencing repeated concussions is not a good thing.

The study is a part of a large-scale community based longitudinal study looking at how healthy brains age, and what factors may increase the risk of dementia. Given the recent high-profile court cases brought by sportspeople with brain injuries and emerging evidence that concussion decreases cognitive function in later life, looking at past incidents of concussion in such a long-term study makes sense. The study asked over 15,000 people between the age of 50-90 to remember their past incidents of head injury, including where or how they happened (for example, playing sport, in a car accident) – along with the symptoms experienced, such as loss of consciousness, dizzy spells and blurred vision. They also tested participants' behaviour and cognitive abilities annually over four years.



Why elite athletes are harnessing their own brain waves for sporting success

The Olympic and Paralympic Games represent the pinnacle of athletic achievement, where the world's sporting elite showcase their prowess. Modern athletes benefit from top-notch coaching, optimised nutrition and recovery strategies. Yet, some are turning to more unique methods for the competitive edge – training the brain.

One approach gaining traction in elite sport is electroencephalographic neurofeedback. This technique involves placing small sensors on the scalp to record and display brainwaves in real-time.

The goal is to help athletes recognise and produce brainwave patterns that enhance focus, relaxation, or achieve a personalised optimal state for their skills. It's a bit like holding a mirror to the brain. When the technology displays what is happening in the brain in real-time, people can easily experiment by bringing different thoughts or images to mind and they will immediately see how the brain signals change. It is through this process that they can learn to recognise different brain states and apply psychological strategies to help them to take control.

At the Institute for the Psychology of Elite Performance at Bangor University, we have been studying the effects of neurofeedback for several years. In a 2015 study, we found that 12 amateur golfers improved their putting accuracy by 21% after three one-hour neurofeedback sessions. In a similarly designed 2023 experiment, we found that six 30-minute neurofeedback training sessions helped 14 elite biathletes (the biathlon is a winter sport that combines cross-

country skiing and rifle shooting) to self-regulate their brainwaves and increase their focus in the final seconds before dry-firing their rifles. But there was a caveat. In both studies, the improvements of the golfers and biathletes were similar to those in control groups who practiced their sports without neurofeedback.

More promising results came from a 2021 study of ours with 40 adult volunteers. We asked them to cycle until exhaustion on an exercise bike after performing just 12 minutes of neurofeedback. Thirteen people were asked to produce a brainwave pattern that we thought would be conducive to endurance exercise. The other 13 were asked to produce a brainwave pattern which we did not think would benefit performance. The remaining 14 participants had to watch a neurofeedback recording without controlling their brainwaves at all.

The results were striking. The group who had been asked to produce the positive brainwave pedalled for 30% longer than the others. We now need to replicate the study with a larger sample of more highly-trained cyclists to understand whether this technique can yield benefits at the more elite end of the sport.

The next phase of research is already underway, with some studies applying learnings from sport neurofeedback experiments to try to make a difference elsewhere. Early findings from our lab point to the feasibility of neurofeedback as a potential means to facilitate movement rehabilitation and to help manage symptoms associated with Parkinson's disease.

While Olympic medals are cherished, if neurofeedback research could eventually lead to readily accessible and efficacious treatments beyond sport, that may well be the biggest prize of all.

In pursuit of excellence: Psychologists develop new tool to assess readiness to perform well

Expertise in the psychological processes underpinning the highest levels of human performance at Bangor University is being used to develop an industry-first 'readiness to perform well' psychological assessment tool (SMART; Structured Multidimensional Assessment of Readiness To Perform) for elite performers in the world of sport and business.

Building on a history of collaboration between psychological services company Changing Minds and Bangor University's Institute for the Psychology of Elite Performance, the two-year Knowledge Transfer Partnership builds on the company's evidence-based 'Performing Well' assessment framework. This unique psychologically-informed framework considers how an individual's psychological characteristics interact with the environment in which they are expected to perform, and the nature of the tasks they will be performing.

Changing Minds Performance Services work with elite-level teams, organisations and individuals to help them reach their potential or perform at their very best in high-pressure corporate environments. Their services have supported success across elite-level football, cricket, rugby, tennis and Olympic sports.

"The pursuit of excellence and desire for success sometimes pushes people to the edges of their abilities, resulting in pressure and demands that mean we don't always perform at our best," explains **Dr Andrew Rogers** co-founder and co-director of Changing Minds.

"Through our substantial experience of applying specialist psychological knowledge in both sport and corporate environments, we believe we can increase awareness and influence behaviours to both promote wellbeing and maximise and sustain psychological high performance, whilst limiting the risks of performance breakdown. This is what we describe as 'Performing Well!'"

In the KTP the team have drawn on the Performing Well framework to develop the new SMART tool, which is currently undergoing validation. Subsequent use of the tool should allow for more objective, credible and impactful assessments of an individuals' psychological readiness to perform well and enable Changing Minds to meet the growing demand in this area from professional sports and business both in the UK and abroad.

"Knowing which talented player to invest in or whether a player is ready to be selected for competition can be tough judgment calls. Anything that can reduce the uncertainty of those decisions is a positive. The SMART tool is a really interesting concept and adds a level of rigour to those judgments and decisions, and will also encourage high performance systems to consider what type of psychological support is required to help an individual thrive." **Mo Bobat**, Director of Cricket at Royal Challengers Bengaluru (IPL) and former England Men's Cricket Performance Director

Ross Roberts, Professor in sport and exercise psychology and a chartered psychologist, who is leading on the KTP from Bangor University added,

"What's exciting about this project is the opportunity to transfer our in-depth academic knowledge of sport and performance psychology into a commercially viable project with a company we know well. The potential impact we can have together in terms of the support offered to individuals and organisations in high-performance settings is huge. This project is all about bringing the team's collective knowledge together to create something that provides the end user with a smooth experience based on empirical evidence and sound scientific integrity."

This KTP project received financial support from UKRI through Innovate UK



Prof. Ross Roberts and Dr Andy Rogers



Treating bullying as everyone's problem reduces incidence in primary schools

The largest trial of its kind in the UK has shown how a low-cost, structured, anti-bullying programme can improve social dynamics in primary schools and reduce victimisation.

The year-long trial of the KiVa school based bullying prevention programme was implemented in over 100 primary schools in England and Wales and involved over 11,000 students. It significantly reduced incidents of bullying and was equally effective across socio-economically diverse schools and from small rural schools to large, urban ones. The study was funded by the National Institute for Health and Care Research (NIHR).

The 'KiVa' programme focuses on the behaviour of all children and emphasises the role that bystanders can play. Children in schools that implemented the programme were 13% less likely to report being bullied, compared to schools using standard procedures. The schools undertaking KiVa also reported that their children were more empathetic towards victims and that children's problems with their peers were reduced. Economic analyses by public health economists from Bangor University found that KiVa is also a low-cost intervention, which is particularly important given budget restrictions in schools.

Professor Judy Hutchings, from the Centre for Evidence Based Early Intervention at Bangor University, said: "Bullying in childhood is one of the biggest risk factors for later mental health problems in childhood, adolescence and beyond. Unfortunately, it is widespread in UK schools; and while all schools are required to have a bullying policy, it's rarely evidence-based. The KiVa 'whole school' approach has had really significant effects on bullying in other countries because it focuses on everyone's behaviour, and removes the social rewards usually gained by the perpetrators."

The Finnish Kiusaamista Vastaan ("Against Bullying"), or KiVa, programme, is based on research that demonstrates that bystanders – children who are present, but not directly involved in bullying incidents – have a major role to play in defending the victim, making bullying less socially acceptable, and so reducing the motivation of bullies.

The research is the largest randomised controlled trial to date of the KiVa programme outside Finland, involving 118 schools across England and Wales. Half the schools adopted KiVa and half continued standard practice. Data were obtained from 11,111 pupils who filled in surveys about bullying, and from teacher-reported pupil behavior questionnaires on 11,571 pupils, both before and after the trial. The trial ran for a full academic year. However, KiVa is designed to be embedded into ongoing school practice and many schools involved in the trial are continuing to use the programme.

The schools on the KiVa arm of the trial set up fortnightly lessons for pupils which focused on recognising and responding to bullying and helping to support victims. There were also whole-school assemblies on bullying, poster campaigns and information for parents. Teachers supervising breaktimes wore high-visibility vests. For every identified bullying incident, staff followed KiVa's recommended actions.

Rather than the traditional response of blame and punishment for the bully, the schools had individual discussions with the children involved and made sure that the bullying pupil committed to clear actions to support the victim.

The project was led overall by Bangor University working with the Universities of Exeter, Oxford, Warwick, and Birmingham and the trial itself was managed by the Centre for Trials Research, Cardiff University. The Children's Early Intervention Trust charity, that has the UK KiVa dissemination license, organised intervention costs, training schools and implementation.

The results from the UK trial of 13% reduction in bullying are less compelling than those from earlier studies in other European countries. However, the UK trial took place during the Covid-19 pandemic, which involved major classroom disruption for pupils and considerably higher levels of absenteeism, and researchers believe this may have affected the results.

Lucy Bowes, Professor of Psychopathology at the University of Oxford, said: *"Being bullied may have devastating consequences for children and young people, including increasing the risk of mental health difficulties such as anxiety or depression, as well as poor school outcomes. This means that any improvement is worthwhile and even small percentage changes can have a substantial impact for those individual children and will cumulatively improve the situation in the school over time. The Finnish data show year-on-year improvements over seven years for schools that continue with the programme. Addressing bullying in schools is a major public health concern, and evaluating anti-bullying programmes used in our schools is vital."*

'The effects and costs of an anti-bullying programme (KiVa) in UK primary schools: a multicentre cluster randomised controlled trial' is published in Psychological Medicine.



GRANT SUCCESS

Full development and scale-up of RILL

Project Lead Prof. Manon Jones, Funded by Welsh Government

The RILL Cymraeg project was developed and tested for efficacy in 25 schools (a further 69 schools were trained) between 2022 - 2024. Our RCT results reveal that this structured literacy with language programme improves 7-9 year olds' outcomes to an educationally significant level. Welsh gov are proposing to fund development of the programme onto a new web-based platform for production and to conduct an efficacy trial in Welsh and in English.



Designing toys for motor rehabilitation after stroke: integrating theory, suitability, and practical considerations

Project Lead Dr. Ayelet Sapir, funded by British Academy/ Leverhulme

In the UK, a stroke occurs every five minutes, often resulting in upper limb motor impairments that hinder daily activities. In this research we are developing self-administered rehabilitation tools, supported by the British Academy's BA/Leverhulme Small Research Grants Programme. These affordable, engaging tools integrate motor learning principles and patient feedback to make rehabilitation effective and enjoyable, easing clinical burdens. Collaborating with three stroke centres in North Wales, the project follows three stages: assessing needs, designing gamified prototypes, and refining based on feedback. Open-source tools aim to revolutionize rehabilitation, supporting accessible, patient-driven recovery nationwide.

Effect of nicotine and alcohol exposure in utero on vascular intima-media thickness, endothelial function, and the development of cardiometabolic risk factors in children in a low income setting

Project Lead Aamer Sandoo, funded by University of the Western Cape

Fetal exposure to nicotine and alcohol during pregnancy may increase the risk of cardiovascular disease (CVD) later in life, particularly in low socioeconomic regions where CVD risk factors are observed in children. The Developmental Origins of Health and Disease (DoHaD) hypothesis suggests that prenatal exposures cause permanent changes in fetal structure, physiology, and metabolism, predisposing children to CVD. Studies link prenatal nicotine and alcohol exposure to increased intima-media thickness (IMT) and highlight mechanisms like oxidative stress and reduced nitric oxide (NO) availability due to chronic hypoxia.



Research into taking early childhood development interventions to scale (THRIVE)

Project Lead Prof. Helen Henningham, funded by Oxford Policy Management Limited

Over 250 million children under the age of 5 years in low- and middle-income countries do not reach their developmental potential due to poverty, under-nutrition, and a lack of early stimulation. Poor development in early childhood has life-long consequences for individual educational achievement and future income with implications for national development. There is a strong evidence base showing that supporting caregivers, families, and communities to provide nurturing care can have a positive impact on child development. However, few interventions have been delivered at scale and there are gaps in our knowledge about how to take successful approaches from pilot to scale.

THRIVE is a 5-year, multi-country research program that aims to support countries to deliver practical, scalable, cost-effective programs aimed at promoting young children's development. THRIVE is working across 5 countries: Bangladesh, Ghana, Kiribati, Tanzania and Sierra Leone.

Professor Helen Baker-Henningham is International PI for the THRIVE portfolio of work in Bangladesh and is working alongside the national PI, Dr. Jena Hamadani and a team of Bangladeshi researchers on several projects including:

- » **Identifying and evaluating strategies for scaling up an evidence-based, early childhood, parenting program through the primary health care system in rural Bangladesh.**
- » **Examining the feasibility of establishing quality day-care facilities for mothers working within the garment factories in Bangladesh.**
- » **Conducting a follow-up study to investigate whether there are medium-term benefits to child and maternal outcomes from a combined cash transfer and early childhood parenting programme compared to a group who received cash alone.**

WISHING YOU THE BEST

Happy retirement Prof. Debbie Mills

By Prof. Dave Richardson

Debbie commenced her employment within the former School of Psychology in October 2012. Debbie was PGR-lead for the College (when it was the College of Human Sciences) and instrumental in forging research links across the College through events like the College-wide PGR conference, which she inaugurated in 2019.

As part of that role, she also contributed greatly to supporting and building the strength of the ESRC Doctoral Training Partnership at Bangor. Debbie is also a dedicated and inspiring teacher and supervisor, teaching both undergraduate and masters modules in Developmental Cognitive Neuroscience, ERP Methods and Analysis, Language Acquisition and Bilingualism, and the Biological and Brain Bases of Neurodevelopmental Disorders. During her teaching career, the passion, intellectual challenge, care and support she has shown for her students is immeasurable.

Debbie's research has provided insights into the effects of experience on brain plasticity and cognition across the lifespan. Her research has bridged the areas of cognitive neuroscience and cognitive development with a particular interest in how learning two languages shapes the organization of the brain, and the interaction between social/emotional experience and language development. Debbie has produced an extended and diverse body of cognitive neuroscience studies at the fascinating intersection of genetics, learning, development, and bilingualism, with a particular interest in Williams syndrome, and a passion for the use of event-related potentials to capture signatures of cognition as it unfolds. Moreover, Debbie has also explored the links between genes, brain, cognition, and culture.

More recently, we have been grateful for Debbie's tireless work as the Chair of the School's ethics committee and particularly with the migration from the legacy system to Infonetica and for her leadership as Director of Research at Tir na nOg Child Development Centre and Nursery.

After an illustrious career, we wish to celebrate her time with us as a dear colleague and friend. She will be very much missed by all of us.

Here are some comments made by her colleagues:

Kami Koldewyn

"May this be a chance to celebrate yourself and your accomplishments. And may retirement mean that you have time to do everything you like. May it be full of dog-walking and horse-riding and book reading. I look forward to seeing you at seminars and the chance for more leisurely scientific discussions."

Tracey Lloyd

"Don't go! But if you must retire, have the most amazing time doing the things you love. Don't be a stranger - I'm sure we can sneak in the odd lunch, so I don't miss my friend too much. You've been a great colleague and an inspiration."

Thandi

"Dearest Debbie, Massive congratulations and wishing you all the best for your adventures!! I hope you have lots of fun, and rest and doing the things that make your heart soar. It has been such a pleasure and privilege working with you and you will be really, really missed by colleagues and students alike. Please come visit!!"

Prof Debbie Mills with SPSS staff during the Summer Graduation 2024



The School of Psychology and Sports Science says goodbye to Rebecca Henderson

By Prof. Paul Mullins

Rebecca (Becca) Henderson has decided that after almost 30 years at Bangor University, most of that within the School of Psychology, and now the School of Psychology and Sport Science, it is time to retire and live the van life.

Becca has been a fixture of the school and department over those 30 years, interacting with several members of staff and facilitating several different initiatives and processes during that time. Involved with both general and specific administrative work, Becca will be remembered for so much.

First for her role in patient recruitment and scheduling for various cognitive and clinical neuroscience studies, where her dedication to ensuring the patient's experience was a positive one meant that they often turned into "frequent flyers", taking part in other studies and teaching activities. The main testament to Becca's talent here lies in the number of past research participants that have remained in touch with her (and occasionally provide honey and other goodies). This is not just a one-way street, as Becca continued to keep patients and participants engaged, keeping the communication going both ways. These efforts have helped several large research efforts at the school, from the Welsh Institute for Cognitive Neuroscience, the NeuroSkills program, and most recently work on rehabilitation after nerve injury.

Becca's warm and generous nature was also apparent in the way she welcomed new postgrads and postdocs to the department. Organising social events, driving people around, and even providing portable accommodation and good cheer at local cultural festivals. There are many postdocs and postgrads whose fond memories of Bangor, surely include Becca in some way.

Her organisational capabilities, and more importantly seemingly bottomless knowledge of who can provide what, both within and outside of the University, often saw her services in high demand for workshops, conferences and other events. Becca's role on the Visceral Minds program was a large part of its initial success, organising Ceilidh's and Hog Roasts at Hendre Hall, or the old Victoria Hotel, as well as other day trips to ensure the visiting scholars enjoyed the true Celtic flavour of Wales, as well as the natural environment that Makes Bangor so special.

Outside of work, Becca was as equally generous and gregarious, often being involved in organising BBQ's and social events for staff and students. Outings to Porth Nobla or Trecastel ("The Usuals" according to Becca) or Traethth Llandwyn, Red Wharf Bay, and Benllech were common during the summer months. Becca even helped organise "flash mob" style BBQ's on Roman camp for the imaging group when the weather was good.

It is an easy thing to say that Becca's contributions to the School will be missed, but equally so, her wonderful personality and warm heart will also be missed. We wish her nothing but the best as she drives off into the sunset.

Rebecca (Becca) Henderson



Festive Wishes

from all of us at the

**School of PSYCHOLOGY
AND SPORT SCIENCE**



PRIFYSGOL
BANGOR
UNIVERSITY



Dr. Gavin Lawrence, Prof. Paul Mullins, Dr. Vicky Gottwald,
Dr Tommie Du Preez, Prof James Hardy and Dr. Paloma Mari-Beffa

MIND AND BODY

**The newsletter of the
School of PSYCHOLOGY
AND SPORT SCIENCE**

The latest news from Psychology
and Sport Science, staff and alumni

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