



# **FMHLS PGR Conference 2025**

**Monday 19th - Tuesday 20th  
May**

**Presentations - Glyndwr D**

**Posters - ILS 1 Seminar Room 117 A&B**

# Introduction to the conference

The Faculty of Medicine, Health and Life Science Postgraduate Research Conference is designed to facilitate dissemination of research in a supportive and friendly environment.

Through the PGR conference we hope students will:

- Gain a breadth of knowledge in the diverse research going on in the faculty.
- Foster social and intellectual relationships that generate new contacts and new ideas through conversation.
- Learn how to present and gain confidence in presenting to your peers.

## DISCLAIMER

Please note that photographs of PowerPoint slides/posters are not permitted unless consent is given by the researcher presenting, in case of intellectual property rights. If you have any further questions, please contact;

[fmhls-pgrreps@swansea.ac.uk](mailto:fmhls-pgrreps@swansea.ac.uk)

Please also note that photographs will be taken throughout this conference, if you do not wish to be photographed, please email the reps above.

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# FMHLS PGR Conference 2025

## PROGRAM SCHEDULE Monday 19th May

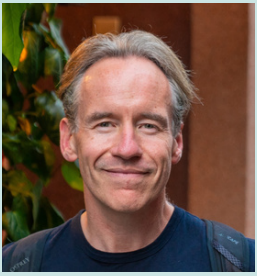
Registration	9:30 - 10am
Session 1	10am - 11am
Break	11am - 11:15
Session 2	11:15 - 12:30
Lunch and posters	12:30 - 1:45
Session 3	1:45 - 3:15
Break	3:15 - 3:30
Session 4	3:30-4:30
Closing Remarks	4:30

# FMHLS PGR Conference 2025

## PROGRAM SCHEDULE Tuesday 20th May

Registration	9:00 - 9:30
Session 1	9:30 - 11am
Break	11am - 11:15
Session 2	11:15 - 12:30
Lunch and posters	12:30 - 1:45
Session 3	1:45 - 3pm
Break	3pm - 3:15
Session 4	3:15 - 4:30
Closing Remarks	4:30

# Guest speakers



## Professor Andrew McStay

**Andrew McStay** is Professor of Technology & Society at Bangor University and the author of *Automating Empathy: Decoding Technologies that Gauge Intimate Life*, published open access in 2024 with Oxford University Press. His work explores the ethical implications of AI systems claimed empathise and understand emotion. Director of the Emotional AI Lab, his current projects include Responsible AI (RAI) funded work to diversify regional input into IEEE-based ethical technical standards for emulated empathy and human-AI partnering (IEEE P7014.1). Other recent work includes a project for the Office of the Privacy Commissioner of Canada on child-focused emotional AI systems. He is also a technology advisory panel member for the UK's Information Commissioners' Office.



## Dr Laura Thomas

**Laura Thomas** was scientifically trained at the University of Birmingham, UK (undergraduate) and Cardiff University (postgraduate) to understand the molecular mechanisms underlying tumour development in inherited tumour syndromes. Laura completed her postdoctoral studies and HCRW fellowship with Prof Julian Sampson at Cardiff University, School of Medicine. She has now established her own research group at Swansea University Medical School with a focus on intestinal tumour development in the inherited intestinal polyposis syndromes; Familial adenomatous Polyposis (FAP) and MUTYH associated polyposis (MAP).



## Professor Amy Brown

**Amy Brown** is a Professor of Maternal and Child Health and directs the research centre 'LIFT' which stands for Lactation, Infant Feeding and Translational Research. Amy came to Swansea as an undergraduate student almost 25 years ago and forgot to leave. She went on to complete an MSc and PhD (during which she had three babies), alongside working in part time research and teaching roles across psychology, childhood studies, health sciences and adult education. In 2011 she became a full-time lecturer and progressed through to professor in 2018. Her work explores early parenting, particularly infant feeding and mental health. She has published over 100 papers, written 12 books, collaborated on research funding worth over 4 million, advised governments and health organisations around the world, and drives what is probably the world's only car that says 'urgent donor human milk' on the side in Welsh.

# Monday 19th May

## Session 1

Chair:

10:00-10:10 **Thomas Wilkinson** - Welcome & Housekeeping

10:10-11:00 **Prof Andrew McStay** *Guest Speaker* - The Ethical Implications of Empathic AI: Governance, Standards, and Public Trust.

## Break (15 minutes)

## Session 2

Chair: Andrea Tales Judges:

11:15-11:25 **Lewis Hotchkiss** *Medical School* - Enabling Responsible AI Development in Sensitive Healthcare Data

11:25-11:40 **Flo Avery** *Medical School* - Implementing a school-based group intervention for young people with Adverse Childhood Experiences in Wales: a feasibility and acceptability pilot trial

11:40-11:50 **Deniz Akin** *Medical School* - Investigating Genotoxic Effects of Dietary Carcinogens via Acute and Chronic Exposure in Gastrointestinal and Hepatic Cell Models

11:50-12:00 **Caitlin Maggs** *Medical School* - Evaluating chemical-induced DNA damage in multiple cell culture models to inform quantitative Adverse Outcome Pathway (qAOP) development

12:00-12:10 **Kori Sunter** *School of Psychology* - Public Perceptions of Air Pollution and Interventional Methods to Improve Literacy

12:10-12:20 **Jesse Blackburn** *School of Psychology* - From Clinical Care to Environmental Stewardship: A Ripple Effects Mapping Study of a CSA Initiative in the NHS

12:20-12:30 **Alexandra Fraser** *School of Psychology* - Exploring the impacts of foraging as a nature-based activity on sustainable wellbeing: A pilot intervention study

## Lunch and posters (1 hour 15 minutes)

## Session 3

Chair: Judges:

13:45-14:00 **Jessica Willis** *Medical School* - Selective Inhibition of extracellular vesicle subtypes associated with aggressive prostate cancer

- 14:00-14:15 **Megan Rees** *Medical School* - Unravelling E. coli Pathogenicity: Investigating Key Genes Linked to Sepsis Development to Aid Early Diagnosis
- 14:15-14:30 **Liam Haglington** *Medical School* - Novel biodegradable antimicrobial thin film coatings for the reduction of healthcare associated infections and to tackle the antimicrobial resistance crisis
- 14:30-14:45 **Nicole Pickford** *School of Psychology* - Identifying Early Signs of Cognitive Deficits Using a Novel Eye-Tracking Protocol: Distinctions between Mild Cognitive Impairment, Subjective Cognitive Concerns and Healthy Controls
- 14:45-15:00 **David Williams** *Medical School* - A pilot study screening for steatotic liver disease and advanced fibrosis in people with type 2 diabetes

### **Break (15 minutes)**

### **Session 4**

Chair: Judges:

- 15:15-15:35 **Dr Laura Thomas** *Guest Speaker* -
- 15:35-15:45 **Angelo Ross Andrew V. Robles** *Medical School* - Investigating Ethanolamine Plasmalogen Lipid Function in the Zebrafish Brain
- 15:45-15:55 **Yasmin Jenkins** *Medical School* - Targeting  $\alpha/\beta$ -hydrolase domain containing protein 11 (ABHD11) in T-cell mediated autoimmune disorders
- 15:55-16:05 **Iwan Gane** *Medical School* - Investigating the role of plasmalogen lipid in neuronal function and its potential therapeutic applications in Alzheimer's Disease
- 16:05-16:15 **Imogen Bennett** *Medical School* - Duodenal involvement in MUTYH-associated polyposis: findings from an international prospective study and implications for endoscopic surveillance.
- 16:15-16:25 **Caitlin Partridge** *Medical School* - The Epidemiology of Cancer and Cardiovascular Disease Diagnosis in Wales

16:25-16:35 **Closing remarks**

# Tuesday 20th May

## Session 1

Chair: Judges:

09:30-09:45 **Professor Charlotte Rees** Welcome

09:45-10:15 Q&A with PGR leads

- 10:15-10:30 **Chloe Mellor** *School of Psychology* - Maintaining Consumer Satisfaction with a Reduced Energy Density Snacking episode: Two Pilot Studies considering combinations of low and high energy density foods
- 10:30-10:40 **Simon Wright** *School of Psychology* - Electronic screening, brief intervention, and referral to treatment (e-SBIRT) for gambling harm: Acceptability and preliminary efficacy.
- 10:40-10:50 **Charlotte R Morgan** *Medical School* - Synthetic wound fluid altered the antimicrobial susceptibility and the biofilm formation ability of chronic wound bacterial isolates of *P. aeruginosa* and MRSA
- 10:50-11:00 **Natalie Rouse** *School of Psychology* - The relative influence of perceived processing level alongside nutrition, health, sustainability and price on consumer decision-making for meal-replacement products: A conjoint analysis.

## Break (15 minutes)

## Session 2

Chair: Jesse Blackburn Judges:

- 11:15-11:25 **Jordan Turney** *Medical School* - Understanding cancer aggregate migration; utilising Bio-AFM, biomechanics and molecular biology at the peritoneal boundary
- 11:25-11:35 **Richmond Opoku** *Medical School* - A Bird's Eye View: A Scoping Review of Reviews on Outcomes of Childhood Out-of-Home Care Exposure in High-Income Countries
- 11:35-11:45 **Rebekah Clarke** *Medical School* - Developing Small Molecule Inhibitors of GATA2: a novel approach to target leukaemia blasts and stem cells in therapy-resistant acute myeloid leukaemia
- 11:45-12:00 **Hannah Price-Jones** *School of Social Sciences* - Exploring Ethnic Inequalities within the Construct of the Children's Care System
- 12:00-12:15 **Mohammed Albaqami** *School of Health and Social Care* - Strategies of dealing with employee stress and the managers role in providing a healthy environment in hospitals in Saudi Arabia



12:15-12:25 **Ruben Lamers James** *School of Psychology* - Impact of Perceived Source Type on Belief-Updating in a Deepfake Detection Task

### **Lunch and posters (1 hour 15 minutes)**

### **Session 3**

Chair: Judges:

13:45-14:00 **Megan Cumming** *School of Psychology* - Flow in Nature: How do Natural Environments Support Optimal Experience and Wellbeing?

14:00-14:15 **Leigh Ham** *School of Health and Social Care* - Parellels of power within a dysfunctional machine: a qualitative study exploring midwives' understanding of human rights in childbirth.

14:15-14:30 **Marc Thomas** *Medical School* - Exploring the Role and Educational Requirements of Paramedics within Primary Care (EXPREPP): preliminary findings

14:30-14:45 **Nouf Nasser Alrajhi** *Medical School* - Investigating The Influence of Language On Medication Understanding And Drug Safety Among Chronic Health Patients Who Speak English As A Second Language In Saudi Arabia

14:45-14:55 **Megan Morecroft** *School of Health and Social* - Care Designing for Success: A Prospective Evaluation of Implementation Factors Affecting a Prototype Novel Medical Device in a Low Resource Environment Using the CFIR 2.0

### **Break (15 minutes)**

### **Session 4**

Chair: Judges:

15:15-15:25 **Jessica Smith** *School of Psychology* - Public perceptions of gambling in the Armed Forces: Understanding stigma via a vignette experiment

15:25-15:40 **Courtlyn Elkins** *School of Psychology* - Does filler selection method influence overall lineup similarity?

15:40-16:20 **Prof Amy Brown** *Guest Speaker* - Journey from Undergrad to Professor

16:20 - 16:30 **Closing remarks**

# Posters Monday 19th May

- 1 Jack McGarrigle** - Dark Patterns in Online Gambling: A Scoping Review of Deceptive Design Practices.
- 2 Imogen Harrison** - Dysphoric Singlehood: The Impact of being Single on Emotional Wellbeing.
- 3 Nerissa Thomas** - Investigating Changes in Human Serum and Their Potential Association with Cancer Using Raman Spectroscopy and Machine Learning.
- 4 Megan Davies** - Feasibility of an alternative pathway for hospital referrals from Diabetic Eye Screening Wales (DESW) for people suspected with sight-threatening diabetic eye disease (diabetic maculopathy).
- 5 Matt Waters** - Training Healthcare Professionals for Mass-Casualty Events Through Simulation: A Systematic Review.
- 6 Ruonan Wang** - Improving speech intelligibility for hearing aid users in complex listening environments.
- 7 Kate Sandars** - Coaching in a time of climate breakdown: a mixed methods study.
- 8 Rebecca Taylor** - Unveiling dietary complexity: a scoping review of network analysis in dietary pattern research and a methodological roadmap for future research
- 9 Manjit Singh** - Understanding the mechanisms of postnatal collagen remodelling in immature articular cartilage during the transition to adulthood.
- 10 Alex Caswell** - Bioinformatic Techniques for Long-Read Analysis of the Human Gut Metagenome.
- 11 Ziya Aydin** - Exploring the Advantages of Binaural Beamforming in Hearing aids.
- 12 Megan Flanagan** - Toxicological effects and long-term survival of *Lumbriculus variegatus* following in vivo exposure to (+)-CBD.
- 13 Amy Locke** - Investigating the Impact of Universal Free School Meals on the Health and Wellbeing of Primary School Children in Wales: Insights from Children and Parents.

- 14 Jack Moore** - The cognitive and mood effects of sulphur-containing amino acids: a systematic review of randomised controlled trials.
- 15 Ceri Griffiths** - Professional Judgement in Nursing: Insights from Focus Group Research.
- 16 Grace Labdon** - The Toxicity and Behavioural Effects of Caffeine on *Lumbriculus variegatus*.
- 17 Elizabeth Littlehales** - Barriers and Facilitators to Dietary Self-Management in People with MS: A Systematic Review.
- 18 Tyler Joseph** - Effects of micro- and nanoplastics on the inflammatory responses of the innate immune system.
- 19 Eleri Holmes** - From quantification of dry biofilms to the development of bioadhesives for dry environments.
- 20 Shane Connolly** - Dissecting fundamental mechanisms of ageing using African Turquoise Killifish.
- 21 Elysia Gregg** - Identification of Environmental Risk Factors for Dementia in the Context of Cardiovascular Disease.

# Posters Tuesday 20th May

- 1 **Aralolaoluwa Timothy Ogunrin** - Epithelial and bacterial biomarkers for *Escherichia coli* -associated bacteraemia and sepsis.
- 2 **Tomi Adegun** - A transcriptomic analysis of the 5-Fluorouracil response in *Lactobacilli*.
- 3 **Afnan Alsulami** - Enhancing translation efficiency to improve antibiotic production by *Streptomyces*.
- 4 **Munirah Alomair** - Understanding the molecular basis of antifungal resistance in the emerging fungal pathogen *Candida auris*.
- 5 **Kathryn Knight** - Exploring the antibacterial potential of H-NS inhibition using *in silico* small molecule screening.
- 6 **Melissa Borrill** - Dissecting immune cell utilisation of mitochondrial complex II.
- 7 **Joic Majo Jacinto** - Neuropathological variables and their contribution to multiple sclerosis severity: a systematic review and meta-analysis.
- 8 **Maisie Edwards** - Archwilio canfyddiadau darparwyr gofal iechyd o ddefnydd y Gymraeg wrth ddarparu gwasanaethau gofal iechyd.
- 9 **Cedric Burden** - The Impact of Air Pollution and Asthma on Educational Outcomes: A Scoping Review
- 10 **Gargi Naha** - The intersectionality of sex and deprivation on children and young people's experience of emergency acute asthma care in high-income countries: rapid review
- 11 **Joe Griffiths** - Partisan Norms and False Polarisation: Examining Norm Perceptions and Self-Conscious Emotions during the 2024 US Election.
- 12 **Lauren Bailey** - Understanding the immune-hormone axis and the therapeutic potential of ghrelin modulation in immune cells.
- 13 **Katy Margison** - Evolutionary Analysis of NNMT-like Proteins in *C. elegans*.

- 14 Maha Alqarni** - Mutations in *Saccharomyces cerevisiae* sterol C5-desaturase confer resistance to the blockbuster broad spectrum fungicide mefentrifluconazole (Revysol™).
- 15 Anoushka Bhatt** - Smart-Age: Wearable Technologies for an Inclusive Future for Older Adults.
- 16 Claire Hurlow** - Stressful or supportive? Women's Biopsychosocial Experiences of Exercise and Fitness tracking
- 17 Lowri Stevenson** - How Does Living with Household Food Insecurity Impact on the Wellbeing of Pregnant Women in High Income Countries? A Scoping Review
- 18 Molly Raikes** - The role of placental extracellular vesicles in the beneficial effect of pregnancy in MS
- 19 Ella Christoforou** - The Effects of Air Pollution on Adolescent Mental Health
- 20 Lucy Owen** - Improving Well-Being and Academic Outcomes in Undergraduate students: A Feasibility Randomised Controlled Trial (RCT).
- 21 Amy Griffiths** - Exploring the Relationship Between Autistic Mothers and Children's Social Work