



## Thursday 9 May 2024

Main Atrium, 3<sup>rd</sup> floor BC Building, Belfast campus

9.30am Arrival and Registration (welcome packs on arrival), Main Atrium (3<sup>rd</sup> floor)

**10.30am Welcome and Official Opening of Festival of PhD Research 2024**  
Professor Paul Bartholomew, Vice Chancellor

**10.40am Introduction and Overview of Festival**  
Professor Sonja McIlpatrick, Dean of Doctoral College

11.00am *COFFEE BREAK, Main Atrium*

**11.30am Session 1: PhD Researcher Presentations**  
1a: Inspiring Creativity and Innovation (BC-03-206)  
1b: Accelerating Data Futures (BC-03-115)

12.30pm Poster session / Practice-based exhibition / Photo competition exhibition  
*Lunch served in Main Atrium*

*Doctoral Society Belfast are hosting Festival activities including 'Before I Submit...', PostSecret and StitchED sessions throughout the two days.*

1.15pm Bake Your PhD Competition, BC-03-115a

**1.45pm Session 2: PhD Researcher Presentations**  
2a: Challenging Inequality and Division (BC-03-206)  
2b: Transforming Health (BC-03-115)

3.00pm *COFFEE BREAK, Main Atrium*

**3.30pm Session 3: PhD Researcher Presentations**  
3a: Transforming Health (BC-03-206)  
3b: Building the Sustainable World (BC-03-115)

**4.30pm Bake Your PhD Winner & Closing Remarks**  
Professor Liam Maguire (Pro Vice Chancellor, Research and Innovation)

## Friday 10 May 2024

Ground Floor & Main Atrium, 3<sup>rd</sup> floor BC Building, Belfast campus

9.30am Arrival and Registration, Ground Floor

**10.00am Guest Speaker: David Meade**  
Lecture Theatre 1, Ground Floor, BC Building

11.00am COFFEE BREAK, Main Atrium, 3<sup>rd</sup> floor

**11.30am Session 4: PhD Researcher Presentations**  
4a: Building the Sustainable World (BC-03-206)  
4b: Inspiring Creativity and Innovation (BC-03-115)

12.45pm Poster session / Practice-based exhibition / Photo competition exhibition  
Lunch will be served in Main Atrium

*Doctoral Society Belfast are hosting Festival activities including 'Before I Submit...', PostSecret and StitchED sessions throughout the two days.*

1.30pm **Session 5: PhD Researcher Presentations**  
5a: Transforming Health (BC-03-206)  
5b: Building the Sustainable World (BC-03-115)

2.45pm COFFEE BREAK, Main Atrium

**3.15pm Session 6: PhD Researcher Presentations**  
6a: Challenging Inequality and Division (BC-03-206)  
6b: Transforming Health (BC-03-115)

4.30pm Closing Festival Remarks followed by Festival Closing Reception in the Academy Restaurant

### Notes on the venue:

- The Festival will begin at 10.30am sharp on Thursday 9 May with a welcome address taking place in the Main Atrium on third floor of Belfast campus. PhD Researchers are invited to register from 9.30am that morning and tea/coffee will be available on arrival.
- The PhD Presentation sessions will take place in the rooms at either side of the Atrium and each room will be signposted accordingly with a Festival Team member allocated to each. Signage to the rooms will be clearly displayed. Campus navigators will also be on campus.
- The posters will be displayed in the main Atrium area.
- The practice-based exhibitions will be in the main Atrium, with one installation in the Small Atrium.
- Catering will be provided in the Atrium area with different styles of seating.
- The photography competition exhibition will be in the Small Atrium.
- The guest speaker session on Friday at 10.00am will take place in the Lecture Theatre 1 on the Ground Floor of BC Building.
- The Library has quiet spaces for those who wish to use those throughout the Festival.
- Student ID cards are not required for access to the Ground Floor. The barriers on the way to the Atrium will be opened temporarily to allow passage through for the days of the Festival. You may still want to have your pass activated for Belfast campus at BC Reception in case you want to access other parts of the campus.

<https://www.ulster.ac.uk/conference/festival-of-phd-research>



## Full Programme

### THURSDAY 9 MAY 2024, Belfast campus

9.30am Arrival and Registration (welcome packs on arrival, Main Atrium 3<sup>rd</sup> floor)

**10.30am Welcome and Official Opening of Festival of PhD Research 2024**  
Professor Paul Bartholomew, Vice Chancellor

**10.40am Introduction and Overview of Festival**  
Professor Sonja McIlpatrick, Dean of Doctoral College

11.00am *COFFEE BREAK*

### 11.30am PhD Researcher Presentations

1a: Inspiring Creativity and Innovation <i>Chair: Susan Hughes</i> BC-03-206		1b: Accelerating Data Futures <i>Chair: Muhammad Aaqib</i> BC-03-115	
11.30	<b>Miriam Witts</b> Realising the Potential for Drama and Improvisation in Hospitality Training	11.30	<b>Muhammad Yunis Daha</b> Edge Intelligence for Beyond 5G Network
11.45	<b>Senhui Qiu</b> Variational Generative Predictive Coding	11.45	<b>Geraldine Doherty</b> Radiographer Education and Learning in Artificial Intelligence (REAL-AI)
12.00	<b>Brendan Whelan</b> Navigating the Peaks & Troughs: Crisis Events and Adventure Tourism Micro Enterprises on Ireland's Wild Atlantic Way	12.00	<b>Mark Gorman</b> <i>Deep Learning for Unsupervised Anomaly Detection in Semiconductor Manufacturing Time Series Data</i>
12.15	<b>Ellen Corbett</b> 'So, if you're bilingual, why don't you self-translate?': Irish-language Poets and Self-translation	12.15 (R)	<b>Muhammad Asim Ali</b> Explainable and Transparent Imbalanced Learning

**12.30pm Poster session / Practice-based exhibition / Photo competition exhibition**  
Lunch will be served in the Main Atrium

1.15pm

**Bake Your PhD Competition (BC-03-115a)**

Facilitated by Catherine Turner, PhD Researcher

Judges: Rachael Withers (UUBS), Sean Owens (Academy Restaurant)

1.45pm

**PhD Researcher Presentations**

<b>2a: Challenging Inequality and Division</b> <i>Chair: Nicole Marinaro</i> BC-03-206		<b>2b: Transforming Health</b> <i>Chair: Gulzar Alam</i> BC-03-115	
1.45	<b>Nicole Rea</b> Confronting Institutional Abuse across Borders: Remembering Mother and Baby Institutions across the island of Ireland	1.45	<b>Amanda Kearns</b> Biopsychosocial dimensions in digital health communication: a scoping review on interventions related to people affected by both obesity and mental health issues
2.00	<b>Aisling Bonner</b> Examining the relationship between precarious employment and operational performance: A quantitative study in the hospitality industry	2.00	<b>Chloe Anderson</b> A Sex Stratified Approach to Drug Repurposing in Alzheimer's Disease
2.15	<b>Leah Rea</b> Obligations, Compliance, and Repeal? Tracking the Impact of the Interpretation and Application of Sewel upon the Northern Ireland Act 1998	2.15	<b>Brian Crossan</b> Social Work Administration Systems That Strangle Relationship-Based Practice
2.30	<b>Vikie Patterson</b> 'We hug our little destiny again.' Seamus Heaney, from <i>Whatever you say, say nothing</i> (1975) - Decoloniality in the painting and literature of Northern Ireland: A practice-based study	2.30	<b>Oisín Cleary</b> What are the Unmet Needs of Young Stroke? The Perspectives of Young Stroke Survivors, Carers & HCPs
2.45	<b>Frankie Bradley</b> Decolonizing the Genre: A Creative Practice	2.45 (R)	<b>Saqib Javaid</b> The Role of Cardiopulmonary Exercise Testing in diagnosis and management of people with Heart Failure
		2.50 (R)	<b>Kazi Lutfar Rahman</b> Vitamin D status and systemic inflammatory burden as a predictor of biologic treatment response in psoriasis
		2.55 (R)	<b>Frances Hasson</b> Polyetherketoneketone-Hydroxyapatite Composites for Patient Matched 3D Printed Medical Implants

3.00pm

COFFEE BREAK

3.30pm

**PhD Researcher Presentations**

<b>Session 3a: Transforming Health</b> <i>Chair: Jonathan McLaughlin</i> BC-03-206		<b>Session 3b: Building the Sustainable World</b> <i>Chair: Oisín Cleary</i> BC-03-115	
3.30	<b>Roanne Lecky</b> The Diabetic Lung: Impact of Diabetes and Obesity on Lung Health	3.30	<b>Mina Kazemi</b> Hydrogen Safety by Design: exclusion of flame blow-out from a TPRD
3.45	<b>Tony Robinson</b> Desktop Genomics: How personalised medicine may be realised affordable electronics.	3.45	<b>Sara Nasr</b> Development of Bioinspired Antifouling Strategies for Composite Based Hydrofoils
4.00	<b>Sabrina Demirdjian</b> Influence of adiposity on the prevalence of iron deficiency in women of reproductive age: data from the National Diet and Nutrition Survey (NDNS)	4.00	<b>Hazhir Ebne-Abbasi</b> CFD model of fuelling through the entire equipment of a hydrogen refuelling station
4.15	<b>Ailis Stevenson</b> Alterations in the oral microbiome in individuals with schizophrenia	4.15	<b>Antje Otto</b> The DNA of a practice informed post-growth business model

4.30pm Bake Your PhD Winner and Closing Remarks  
Professor Liam Maguire, Pro Vice Chancellor, Research and Innovation)

4.30-6.00pm StitchED Session (Cross stitch, embroidery), Doctoral Society Belfast (BC-03-213a)

## Friday 10 May 2024

9.30am Arrival and Registration (BC Ground Floor)

**10.00am Guest Speaker: David Meade, Lecture Theatre 1, Ground Floor**

11.00am COFFEE BREAK  
Posters, Practice-based Exhibitions, Photo competition on display

**11.30am Session 4: PhD Researcher Presentations**

<b>Session 4a: Building the Sustainable World</b> <i>Chair: Bren Whelan</i> BC-03-206		<b>Session 4b: Inspiring Creativity and Innovation</b> <i>Chair: Frankie Bradley</i> BC-03-115	
11.30	<b>Sara Donaldson</b> A Hidden History of Cloth Finishing in Ireland: The Role Played by C.H. Bates & Co of Kilmainham Mills, Dublin	11.30	<b>David Harkin</b> An SNN based Algorithm for EUS Detection of Adrenal Gland Lesions
11.45	<b>Holly Mullan</b> Farm Succession on the Island of Ireland	11.45	<b>Clare Rhine</b> Navigating Challenges in Cross-cultural Research

12.00	<b>Emma McCay</b> Adolescents' and stakeholders' perceptions of messaging for physical activity promotion	12.00	<b>Scott Paulin</b> Assessing physical performance of the growing and maturing adolescent athlete: A scoping review protocol.
12.15	<b>Conor McDaid</b> Unlocking innovation and sustainability performance in manufacturing SMEs: The role of intellectual capital and supply chain learning	12.15	<b>Humera Sarwar</b> Development and Characterization of Biodegradable Bioactive Glass Formulations as a Dual-Function Platform for Bone Surgical Infections: Antibiotic Delivery and Osteogenic Potential
12.30 (R)	<b>Charlotte Finlay</b> Exploring the Building of a Cross-Sectoral Leadership Constellation: A Social Capital Perspective	12.30 (R)	<b>Samuel Poots</b> Worldbuilding the Revolution: A Creative Approach to High Fantasy Research
		12.35 (R)	<b>Margaret Robb</b> How do Born Global firms compete in international markets

12.45pm Poster session / Practice-based exhibition / Photo competition exhibition  
LUNCH will be served in the Main Atrium

*Doctoral Society Belfast are hosting Festival activities including 'Before I Submit...', PostSecret and StitchED sessions throughout the two days. They are located in the Small Atrium.*

### 1.30pm **Session 5: PhD Researcher Presentations**

<b>Session 5a: Transforming Health</b> <b>Chair: Ciara Sempey</b> BC-03-206		<b>Session 5b: Building the Sustainable World</b> <b>Chair: Vikkie Patterson</b> (BC-03-115)	
1.30	<b>Hannah Brown</b> An exploratory investigation of children's perceptions of their own wellbeing.	1.30	<b>Srinivas Sivaraman</b> Flash boiling and pressure recovery phenomenon during venting from liquid ammonia tank ullage
1.45	<b>Seyedeh Roghayeh Hashemi</b> What does it mean to be moved by a film or television series?	1.45	<b>Melissa Melaugh</b> A Computational Approach to Uncertainty in DNA Sequences
2.00	<b>Rachel Nolan</b> Women's experience of body weight changes during and after pregnancy	2.00	<b>Atish Gawale</b> Numerical simulation of standalone hydrogen tank rupture using chemical kinetic model and CESE method
2.15 (R)	<b>Kerri Grant</b> To Examine the Impact of Nudging Strategies on Consumer Food Choice: A Focus on High Fibre Product Selection	2.15	<b>Tess Hazelhurst</b> Understanding the role of non-financial reporting within climate policy and socio-technical transitions
2.20 (R)	<b>Darragh Harkin</b> An Exploratory Factor Analysis of Visuoperceptual Reading Symptoms in	2.30 (R)	<b>Hannah Thompson</b> Assessment of DOC flux from upland agriculture and development of proxy sensors

	Adults with Visual Stress: Development of the Ulster Visual Stress Questionnaire		
2.25 (R)	<b>Lauren Crawford</b> Epigenetic effects of MTHFR 677 genotype and riboflavin in vascular differentiation of isogenic iPSCs	2.35 (R)	<b>Reshma McMullan</b> 3D Printing of Lattice Structure for PEEK
		2.40 (R)	<b>Hayley Corbett</b> From Forest to Faucet: Innovating Water Treatment with Wood Processing Waste

2.45pm COFFEE BREAK

### 3.15pm Session 6: PhD Researcher Presentations

<b>Session 6a: Challenging Inequality and Division</b> <i>Chair: Katy Haskins</i> BC-03-206		<b>Session 6b: Transforming Health</b> <i>Chair: Umair Shabbir</i> BC-03-115	
3.15	<b>Oisín MacManus</b> Athlete, coach, and family perspectives on the impact of social support on athlete transitions from a national football academy	3.15	<b>Tuyishime Didier Fidele Uwacu</b> The Down Syndrome eye: In-vivo investigation of the structure of the eye in Down Syndrome
3.30	<b>Marianna Espinós Blasco</b> Gender, Coloniality and Violence. A Visual Analysis of the Women, Peace, and Security Agenda	3.30	<b>Brendan Lenfesty</b> A biological computational model can account for perceptual decisions abstracted from movement
3.45	<b>Emma Rebecca Wallace</b> Risk and protective factors for suicidality among lesbian, gay, bisexual, transgender, and queer (LGBTQ+) young people, within the context of the socio-ecological model: A scoping review	3.45	<b>Jodie Mills</b> "Alexa! Can you help me to speak more clearly?"
4.00	<b>Cathal Coyle</b> Exploring how school libraries create and support learning opportunities for pupils in post-primary schools	4.00 (R)	<b>Lekan Abudu</b> Addressing Antibiotics Resistance in Wastewater: A Sustainable Approach
4.15 (R)	<b>Naomi Smyth-Patterson</b> Wellness in Academic Institutions in Northern Ireland	4.05 (R)	<b>Thomas McLarnon</b> Senescence biomarkers are correlated with worsened patient outcomes in chronic kidney disease

**4.20pm Closing Festival Remarks**  
Best Poster Prize announcement, Photo Competition announcement followed by Festival Closing Reception in the Academy Restaurant

# POSTER PRESENTATIONS



PhD Researchers' posters are arranged by research theme:

- Accelerating Data Futures
- Building the Sustainable World
- Challenging Inequality and Division
- Inspiring Creativity and Innovation
- Transforming Health

The Best Poster prize will be decided by a panel of judges with the winners being announced on Friday 10 May during the closing remarks. The winners will be invited to attend the PhD Awards Presentation on 6 June in Coleraine from 12pm-2pm (which will also feature the 3MT® Final).

## ACCELERATING DATA FUTURES

1	Ryan Keating	A Comparative Analysis of Test-Retest Reliability of Three Methods of Load-Velocity Profiling in Front Crawl Swimming in National Pathway Swimmers
2	Ravi Jha	Quantum-Enhanced Feature Maps for Improved Quantum Kernels and Advanced Quantum Machine Learning Application
3	Zoe Bradley	Combating prozone effect and predicting dynamic range of naked eye nanoplasmonic biosensors through capture bioentity optimisation
4	Sophie Carlin	Developing epigenetic synergistic drug combinations with albendazole in paediatric acute myeloid leukemia
5	Geraldine Doherty	Radiographer Education and Learning in Artificial Intelligence (REAL-AI)

## BUILDING THE SUSTAINABLE WORLD

6	Calum Cheung	The need for year-round monitoring of faecal pollution in bathing water
7	Michelle Farmer	Controlled Environment Agricultural Systems (CEA); future sustainability metric design and role for biodiversity regeneration
8	Leila Darvishvand	Development of machine learning models for predicting building energy performance to decarbonize residential building stock in Northern Ireland
9	Ciara Taylor	Closing the circularity gap in tourism through participatory policy design
10	Charlene Clinton	Meeting future global engineering challenges: Investigating how engineering skills and values can enable effective engagement with global responsibility and the UN Sustainable Development Goals
11	Bintul Zehra	3D printed cementitious architectures to deliver sustainable infrastructure assets with enhanced structural and durability resilience
12	Erwin Onyekachukwu	Harnessing Sustainable Materials for Antibiotic Resistance Mitigation
13	Pauline Kerr	Upcycled Foods: Conscious consumption and consumer contribution to the circular economy



## CHALLENGING INEQUALITY AND DIVISION

14	Dara Flanagan	Investigating Representation Through the Analysis of Character Designs from LGBTQIA+ Creatives on the Island of Ireland
15	Oindrilla Ghosh	Exploring the Nexus: Severe Mental Illness Stigma's Cascade Effects on Morbidity and Mortality
16	Aidan O'Neill	Free Yezidi Foundation Collaboration
17	Anna Schmid	Re-imagining Abortion as a Shared Journey: Abortion Accompaniment on the Island of Ireland
18	Naomi Smyth-Patterson	Employee Wellness in Academic Institutions in Northern Ireland
19	Chloe Leydon	Inclusion in primary physical education from the perspectives of educational staff and pupils with disabilities: a qualitative systematic review
20	Clare Rhine	Scratching at the glass ceiling: Female entrepreneurship as a catalyst for social transformation and poverty alleviation

## INSPIRING CREATIVITY & INNOVATION

21	Zoe Gibson	A Historic Review of State-of-The-Art Architecture Education and Its Impact on Contemporary Architectural Design Studios
22	Samuel Venezia	Real-Time Multi-View Image Stitching
23	Conor McCrickard	Dimensional Stability Of 3D Printed Medical Devices
24	Sharon Neill	Application of design-thinking to the prevention and management of lower limb pressure ulcers
25	Ayesha Awan	Digital Banking Dynamics: Exploring Consumer Behaviour and Beliefs in the UAE Retail Landscape
26	Adam Morrison	The Enablers, Inhibitors and Triggers of New Product Development in SMEs
27	Meabh Ivers	Researching Dramatherapy to support the communicative strengths of young autistic children described as minimally or nonverbal

## TRANSFORMING HEALTH

28	Jodie Mills	'Alexa, can you help me speak more clearly?'
29	Ciara Costello	InflamAb: A novel bispecific antibody inhibits atherosclerosis in apolipoprotein E-deficient mice
30	Lauren Mullan	Evaluating the effects of lymphoedema management strategies on functional status and health-related quality of life following treatment for head and neck cancer: a systematic review.
31	Niamh Magee	Using Novel Sensor Technology to Improve Quality of Life for People Living with a Stoma: The Interplay Between Stoma-Pouch Leakage, Skin Health, and Dietary Choice.
32	Francis Marsh	Irish Athlete Transitions into the US Collegiate System
33	Aoife Talbot	Understanding sleep and mental health outcomes in parents of children with life-limiting or life-threatening conditions
34	Chukwunonso Nnajide	Developing a Surrogate System for Sediment Monitoring of Antimicrobial Resistance
35	Asif Ali	Comparative effects of GLP-1 and GLP-2 on beta-cell function, glucose homeostasis, and appetite regulation
36	Lee Armstrong	Targeting of MYO6 by miR-145-5p suppresses Epithelial to Mesenchymal Transition in Prostate Cancer

37	Chelsea Mullan-Graham	Novel Ocular Drug Delivery Systems
38	Mobashir Fatimah	Tolerability of Stellect Lenses in a Paired-Eye Design: A Pilot Study
39	Berienis Muki	Increasing Fish Consumption among Children: Addressing a Public Health Challenge
40	Victoria Gilpin	Enhancing Ostomy Patient Care: Innovations in Wellbeing Monitoring
41	Eva Mihalovova	MicroRNA Regulation of Glucocorticoid Signalling in the Trabecular Meshwork
42	Rachel Devenney	Generating co-occurring mutation models with mutant NRAS in acute myeloid leukaemia
43	Jonathon McLaughlin	Proteomic endotypes of schizophrenia for accurate diagnosis and stratification of the disorder
44	Thokozani Nyawasha	Use of digital communication technologies to promote HIV testing and treatment adherence among men in South Africa.
45	Ozelle Kimalel	Measuring the User Experience and Usability of an Automated External Defibrillator – A Prototype Intervention Usability Study
46	Caitlin Campbell	Investigating the optimal perimetric stimulus for detecting gradients in retinal ganglion cell density in healthy observers
47	Kaniska Samanta	Transferable BCI based Status Monitoring System to Augment Motor Imagery Based Neurorehabilitation
48	Lynsey Montgomery	Effect of interventions with nutrients or specific dietary patterns on mental health outcomes in adults; a systematic review and meta-analysis

## PRACTICE BASED PHD RESEARCH EXHIBITION

Chloe Leydon	Inclusion in primary physical education from the perspectives of educational staff and pupils with disabilities: a qualitative systematic review.
Meabh Ivers	Researching Dramatherapy to support the communicative strengths of young autistic children described as minimally or nonverbal
Aidan O'Neill	Free Yezidi Foundation Collaboration
Rachel Fitzpatrick	Re-Framing
Yinan Wu	How to convey Chinese traditional visual culture to children aged 3-6 years old through picturebooks
John Post	Cruising for Another Picture
Chloe Austin	Living but a Day
Vikkie Patterson	(Dis)embodied painting

### ABSTRACTS

Full abstracts for oral presentations, poster presentations and practice-based exhibits and displays are available to view, in alphabetical order, online.

Scan the QR code for access.

### WEBSITE AND SOCIAL MEDIA

Check out [ulster.ac.uk/phdfest](http://ulster.ac.uk/phdfest) for updates. We will be using Twitter / X to share details of PhD Festival throughout the two days using #UlsterPhDFest hashtag. Follow us at @UlsterUniPhD. Updates will also appear on LinkedIn.



# ULSTER UNIVERSITY RESEARCH STRATEGY 2023-2028

The 2024 Festival of PhD Research programme has been shaped and organised using the new research themes outlined in the University's Research Strategy 2023-2028. PhD Researchers were asked to choose the theme(s) that their research most closely aligned with namely, **Accelerating Data Futures**, **Transforming Health**, **Inspiring Creativity and Innovation**, **Challenging Inequality and Division** and **Building the Sustainable World**.



PhD Researchers' contribution to the overall research mission of the University is both recognised and celebrated through the festival each year. It is hoped that attendees will take the opportunities to discover potential connections across disciplines by listening to presentations, engaging with the poster and practice-based outputs, and getting to know other PhD Researchers who are from different campuses, faculties and subject areas.

Research themes and their descriptions are outlined on page 12 of the Strategy (see QR below).



## Ulster University RESEARCH STRATEGY 2023-2028

**A Strategy for Research  
Excellence, Inclusion and Impact**

Find out more:  
[ulster.ac.uk/researchstrategy](https://ulster.ac.uk/researchstrategy)

**READ THE  
STRATEGY**

