

RESEARCH MATTERS

Celebrating research success and opportunities at the University of Wolverhampton

ISSUE 9



House of Lords event to showcase University's research

The University of Wolverhampton is profiling its groundbreaking research at a special event at the House of Lords in London.

Thought leaders in research, business and education, Members of Parliament, University partners and dignitaries are amongst the special guests at the event on Thursday 18 July 2019, hosted by the University's Chancellor The Rt Hon. Lord Paul of Marylebone, PC.

"The areas of research which will be on display at the event make a real impact on real lives," said Professor Silke Machold, Dean of Research, University of Wolverhampton. "We'll be highlighting our research work in the areas of sustainability, digitalisation and cyber

security, health, and the community in a dedicated expo area for our guests.

"Our researchers will be on hand to talk to guests directly about how their work is helping to make a difference."

Professor Geoff Layer, Vice-Chancellor of the University, added: "This is a very prestigious event for the University, and one which will put into the spotlight our wide-ranging and world-leading research."

Guests at the event will make their way around the expo to find out more about four key areas:

- **Sustainability** – the University's pioneering research is challenging 'throwaway' culture, finding sustainable solutions and helping to build a better – and greener – future for generations to come.
- **Cyber** – experts from the University are creating innovative new technology to support and protect large organisations, in areas such as cyber psychology, cyber security, immersive technologies and virtual reality.
- **Health** – University of Wolverhampton researchers are helping to change lives by fighting life-threatening diseases, designing new treatments and improving health and wellbeing.
- **Community** – transformational projects at the University are highlighting injustice in our society, providing a voice for the marginalised and delivering effective community-based changes.

A sustainable fashion show, featuring the work of University BA Fashion pathway students, will also entertain the guests at the event.

This is the sixth time the University has hosted the House of Lords, with last year's event celebrating degree apprenticeships and lifelong learning.



EDITOR'S WELCOME

The last few months have been very busy on the research front, and I am really delighted to share some of our successes with you in this edition of *Research Matters*.

Professor John Roberts, together with colleagues from the Faculty of Arts and a consortium of international partners, won a highly competitive and prestigious Innovative Training Network grant from the H2020 Marie Skłodowska-Curie Actions. The project titled *Future of European Independent Art Spaces in a Period of Socially Engaged Art (FEINART)* attracted funding of approx. £2.7 million.

Professor Issaka Ndekugri and Dr Nii Ankrah from the Faculty of Science and Engineering were successful in winning a Marie Skłodowska-Curie fellowship on health and safety in construction projects, Dr Panos Georgakis and his international collaborators won a H2020 grant for research on transport planning and we have been successful in a H2020 RISE bid on the future of electronic systems worth approx. £700,000, led by Prof Ndy Ekere. We have also seen some amazing research being published, and we feature some of it in this edition.

In the last few months, we developed and consulted on our institutional Code



of Practice for REF2021, and we had fantastic engagement from staff. I would like to thank all staff who contributed and gave feedback. You can view it at wlv.ac.uk/REFCOP. Meanwhile, we ask staff to engage with us as we are checking staff eligibility requirements for REF2021.

Our new Impact Officers started work in April. Dr Chris Wyatt, Dr Ben Coleman and Ms Jo Mills are based at the Research Hub and are meeting colleagues across the University in the next few months.

Hot off the press also are our initial Postgraduate Research Experience Survey results. With a 77% completion rate, our overall satisfaction has increased to 82.2%. Many thanks to all of our research students who completed the survey, and to our staff who supported the students. We will receive benchmarking reports from AdvanceHE in due course, which we will share with you.

Professor Silke Machold,
Dean of Research
University of Wolverhampton

CYBER RESEARCH FOCUS NEW CENTRE FOR CYBER SECURITY

Funding of £9 million has been secured to develop a new Centre for Cyber Security in Hereford, a joint venture between the University and Herefordshire Council.

The University has approved £1.5 million to contribute to the Centre and successfully secured grant funding of £4 million from the Marches LEP Local Growth Fund and £1.16 million of European Regional Development Fund (ERDF). Herefordshire Council has approved funding of £3.5 million to contribute to the Centre, which will be located on Skylon Park in the Hereford Enterprise Zone.



The new Centre will offer high quality research facilities through the University's Cyber Security Research Institute as well as providing office space for cyber businesses and advanced training facilities designed specifically to tackle threats in cyberspace.

Sustainability Research Focus Changing attitudes to fast fashion

University research is helping to change attitudes around disposable fashion, examining ways to make fashion more sustainable.

With the support of a grant from the Arts and Humanities Research Council, 'Designing a Sensibility for Sustainable Clothing' is exploring how consumers can be encouraged to buy fewer clothes, reuse clothing and best dispose of clothing that they no longer want.

The project's aim is to encourage more environmentally and socially sustainable

practices using a community based cocreated craft workshop approach.

In collaboration with the University of Exeter, a series of workshops were held in Wolverhampton and Cornwall, engaging participants in making fabric, and making, mending and modifying clothes.

Old jumpers were made into new cardigans, old shirts into aprons, and interesting visible repairs made features of 'ruined' clothing. There were also wardrobe audits and participants kept

diaries of their fashion habits, as well as reflective videos, blogs and surveys.

The research has been used as evidence for a recent Government environmental audit committee report on fashion solutions for sustainability.

Recommendations include incentivising high street clothing retailers to provide creative making spaces for customers to mend and modify clothing to provide a long-term, sustained service.

In addition, it is hoped there will be more community spaces made available for workshops which will normalise skills of making and mending.



Researcher highlights international sustainable energy solutions

As chair of the UK and Ireland IEEE Environmental technology and climate change group, Dr Hamid Poursan is committed to finding sustainable solutions.

The lecturer and researcher joined the University last year and has worked for the BBC as an independent senior consultant.

Dr Poursan is an expert on floating solar technology and cleaner energy. His research about how China is moving away from coal for its power sources was cited in *Bloomberg*.

Dr Poursan said: "China's new power plants showcase this country's efficient approach to managing projects from ideas to launch, and capability to scale up new technological concepts."

Dr Poursan is also a principal editor of a new book, *Environmental Challenges in the MENA Region*.



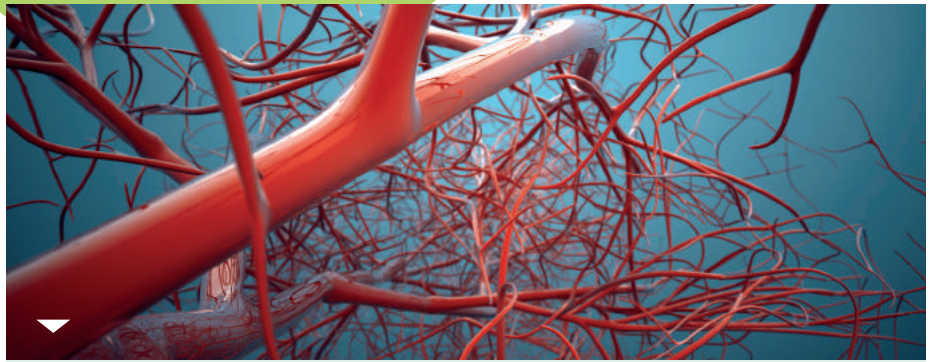
Success for Erasmus

The University of Wolverhampton is highly successful in securing ERASMUS + funding and one project was highlighted as its 100th case study recently.

Working with international partners on a variety of areas, the University is currently working on seven ERASMUS projects within the arts.

The case study highlighted was the CASTLE project which is aiming to make theatres, museums and cinemas more accessible by boosting the entrepreneurial skills of audio describers and subtitlers. The University is developing business start-up resources to help these experts effectively market themselves to the culture sector.

Another ongoing ERASMUS+ project is the €361,901 Signed Safety at Work, where researchers are set to improve emergency communication in noisy working environments.



Health Research Focus Designing interventions to regulate blood vessel formation



A collaborative project between researchers at the University of Wolverhampton and the University of Sheffield sheds new light on the molecular mechanisms that regulate blood vessel formation.

The study, recently published in *Nature Communications*, is the result of a collaboration between the research group led by Dr Angel Armesilla in the Research Institute in Healthcare Science (RIHS) and Dr Robert Wilkinson's group from Sheffield.

The formation of new blood vessels from pre-existing ones (called angiogenesis) is a tightly regulated process essential for tissue and organ development. De-regulation of this process results in excessive or

insufficient formation of blood vessels leading to severe human pathologies.

Work has shown that a protein called TMEM33, expressed in the endoplasmic reticulum of the endothelial cells and whose function was unknown till now, is essential for proper blood vessel formation. In experiments performed using zebrafish as an animal model of angiogenesis, global or endothelial-specific deletion of TMEM33 impairs embryonic vascular development.

Dr Armesilla said: "The outcomes of this study indicate that TMEM33 might be targeted in future therapeutic interventions designed to treat patients suffering from diseases occurring with angiogenesis."

To access the contents of this publication, visit: rdcu.be/bmwpo

INTRODUCING: ELEMENTS

The University's new research information management system, Symplectic Elements, has arrived.

Elements, accessible from elements.wlv.ac.uk, allows researchers and doctoral students to capture, analyse and showcase their research activity within the community.

University researchers can now log into the system, start claiming publications and, vitally, create their external research profiles. Elements will work alongside the current repository WIRE for depositing research outputs.

We will be using Elements for parts of our REF 2021 submission, including staff details and outputs. For outputs, the



system will enable individual academics to select and rank up to six of their outputs for further review within the Units of Assessment against the REF criteria. Further details on the output review process may be found in the REF 2021 Code of Practice online.

Training on the new system is available in a variety of formats and bespoke guidance material has been produced to support you when using Elements, all of which can be found at: wlv.ac.uk/elements

Find out more about our research at: wlv.ac.uk/research

Community Research Focus

Mining the past for major study of British coal industry



The University of Wolverhampton has been awarded more than £650,000 from the Arts and Humanities Research Council to undertake a major study of the British coal industry and its subsequent demise.

'On Behalf of the People: Work, Community, and Class in the British Coal Industry 1947-1994' is a three-year project which commenced in 2017 and is led by Keith Gildart, a Professor of



Social and Labour History and former coal miner.

The collaborative project, between historians based at the University of Wolverhampton and Stirling University, examines the political and social history of the British coal industry in post-war Britain.

Research contributes to House of Commons cyber victimisation report

Cyber harassment and abuse of people with long-term chronic conditions and disabilities is leading to an increase in mental and physical health problems, new research has revealed.

Many victims claimed that online harassment has ruined their lives, with some left unable to work after developing post-traumatic stress disorder, depression and anxiety.

Research findings from Dr Zhraa Alhaboby, a lecturer in Public Health at the University of Wolverhampton, have contributed to a new House of Commons report focusing on online abuse and the experience of disabled people.

The report, which examined the experiences of more than 150 respondents sourced via patient support groups alongside insight from GPs in the UK, suggests the current laws are unfit for purpose to protect people with disabilities online.

Dr Alhaboby said: "It was clear from the findings that victims suffered from deteriorating health and struggled to get the right support. There needs to be more awareness, a change in perceptions, training for frontline staff and new legislation."

A health promotion tool has since been developed to increase awareness and improve the support available to victims.



NEW CENTRE FOR PSYCHOLOGICAL RESEARCH LAUNCHED

A new Centre for Psychological Research has been officially launched at the University of Wolverhampton.

The University has launched its new Centre for Psychological Research, focused on both applied and theoretical areas of Psychology, including: Health, Clinical, Counselling, Occupational, Cognitive, Cyberpsychology, Forensic and Investigative, and Social and Community.

Research activities in the Centre are organised through four research clusters:

- Cognition and Individual Differences Research Group
- Cyberpsychology Research at the University of Wolverhampton
- Social and Community Psychology Cluster
- Wellbeing and Psychological Health

Research student is one of top 40 Saudi students in the UK

Institute of Education research student Abdulrahman Alshabeb has been acknowledged by the Royal Embassy of Saudi Arabia in London as one of the top 40 Saudi research students in the UK.

"The nominations have been conducted according to each student's achievements and records throughout the years. I feel proud of this achievement as a University of Wolverhampton student and thank the staff for their motivation and assistance," said Abdulrahman.

Abdulrahman has also recently translated a book into Arabic. *Mobile Learning: The Next Generation* was edited by Professor John Traxler, University of Wolverhampton, and Professor Agnes Kukulska, The Open University, and is now distributed across Saudi and Arab universities.



Find out more about our research at: wlv.ac.uk/research