

RESEARCH MATTERS

Celebrating research success and opportunities at the University of Wolverhampton

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Modern universities should be the engines of levelling up – A piece by Interim Vice-Chancellor, Professor Ian G. Campbell

Levelling up was a cornerstone of Boris Johnson's successful election campaign in 2019 before two years of coronavirus firefighting made it understandably difficult for the government to put flesh on the bones of the proposed agenda. While some of the detail remains understandably sketchy, with the publishing of the long-awaited levelling up white paper on 2 February, we can begin to see - along with the must-read tidbits on the Renaissance and the city of Jericho - the shape of the government's strategy.

Given the scope of the task at hand, namely addressing regional and intra-regional inequities and structural disadvantages that have set in over decades in some cases, the twelve missions outlined are broad in theme and scope. We were fortunate to host Michael Gove, Secretary of State for Levelling Up, at the University of Wolverhampton in January, when he had positive things to say about the importance of universities in levelling up and addressing inequality. He was also impressed with the approach he saw of partners coming together to work on sustainable solutions for our areas. What is perhaps slightly surprising, and I would argue disappointing, is the overall lack of explicit emphasis in the white paper on the part universities should play in this space.

Any attempt to truly level up parts of the country that have been traditionally and historically 'left behind' that does not make universities a central part of that mission would be missing a trick. It would be like a pit crew changing the tyres on a Formula One car but neglecting to first install the engine. It also fails to recognize the importance and prominence of modern universities as



anchor institutions in their respective areas. Through the ongoing research they do and the technical and vocational education they deliver, through the degree apprenticeships they have pioneered, modern universities are working to realise the government's stated ambitions. Many of these universities are also situated in areas specifically targeted for levelling up and are actively working collaboratively with their partner base. These institutions are vital hubs of teaching, research, knowledge exchange, expertise and more besides. And as MillionPlus will be highlighting with a major report later this year, they are economic, social and cultural place-makers in every part of the UK.

As such, who better to lead on upskilling and re-skilling people living in pockets of deprivation in their regions than the universities with decades-long roots in those communities alongside long-established partnership arrangements? Often the biggest employer in their regions, universities are the beating civic heart of the area they live in. Their successes are their community's successes. The white paper outlines the

government's ambition that the UK should be a global hub of innovation by 2035 and a science superpower, building on long-standing, world-class research and innovation strengths. To this end, the government has pledged to increase research and development investment outside London and the southeast.



This is a laudable aim, one that MillionPlus has long called for. It will be best achieved by utilising the universities where so much research - particularly real-world, difference-making, translational research - takes place, outside of the historic 'golden triangle' of London, Oxford and Cambridge. MillionPlus has also repeatedly argued for a new and more equitable approach to research funding, which the levelling up agenda offers a fresh opportunity to do.

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EDITORIAL WELCOME

These last months have been incredibly busy. The government has finally released its White Paper on levelling up and so we dedicate the front page of Research Matters to a summary of the paper as well as a discussion of the implications for our university.

Our main research funder, UKRI, is undertaking a number of consultations in the process of rolling out the national Research and Innovation Strategy.

Amongst others, UKRI are consulting on the shape of the next research assessment exercise, its new Equality, Diversity and Inclusion strategy, as well as the next Knowledge Exchange Framework.

We are participating in these important consultations through institutional responses developed via URC and by feeding into sector-wide responses.

It also gives me great pleasure to share with you research project successes that include international prizes for research that led to novel and sustainably-produced materials, impactful engagement with user groups as well as funding successes.

Over the last few weeks, we have all followed with horror and anger the news about the Russian invasion of the Ukraine.

We are exploring a number of options of what we can do to provide help our fellow researchers in the Ukraine, in addition to the support we provide to our staff and students who are affected by this conflict.

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Front cover story cont.

Modern universities should be the engines of levelling up –
A piece by Interim Vice-Chancellor, Professor Ian G Campbell

Separate guidance issued on the same day of the white paper has also given a tantalising glimpse of the long-awaited, lesser-spotted UK Shared Prosperity Fund, the remit of which would seem to dovetail neatly with the levelling up agenda.

Conceived as a replacement for EU structural funds post-Brexit, the SPF had seemingly fallen almost completely off the radar in the intervening years with little to no further detail emerging. Now we know though the £2.6bn fund will be decentralised to local leaders as far as possible, with investments set to

"regenerate communities, boost people's skills, and support local businesses."

Decentralisation was a key recommendation in MillionPlus' 2020 report SPF2020: How the Shared Prosperity Fund can protect the UK economy so we are pleased to see this intention confirmed.

It will be important that modern universities are able to access these funds so that they can play a key role in boosting their regions.

Disappointingly though, despite levelling up necessarily being a long-term agenda, with the twelve missions being targeted by 2030, and designed to be cross-government, another recommendation for longer funding cycles has not been taken up.

If reports of funding shortfalls from the SPF compared with EU funds are correct, this could also potentially hinder progress in the very places where that money could do the most good.

The government calls levelling up a social, moral and economic programme to root out inequality across Britain. Modern universities are well placed to help deliver that change and stand ready to answer that call.

Funding boosts to promote brain health in Chinese communities

Following a £25k funding boost from Alzheimer's Research UK's flagship public outreach scheme, the Inspire Fund, a vital new programme of work will start across the UK to promote good brain health to those living within Chinese communities.

Dementia is a condition caused by several diseases and it affects one in 14 people aged over 65 years old. By 2026, the number of Chinese people in the UK over the age of 65 will exceed a quarter of a million, and it's forecast that 18,215 of them will be living with dementia.

Relatively little work has been carried out to engage Chinese communities across the UK with brain health and ways they can help reduce their dementia risk. Now, Dr Jennifer Lim at the University will work with five community groups across the UK to adapt the campaign to meet the needs of Chinese communities. This will include work to address the language barrier by translating information into Mandarin and Cantonese, adapting existing materials to fit with Chinese



culture, as well as co-producing materials with those in the community to bring people together.

The project is a partnership of five community organisations in London, Bristol, Birmingham, Manchester, and Liverpool, and will lay the foundation for systematic intervention and future research in this community. The new funding will provide training and support for key leaders within the community organisations about brain health.

Dr Jennifer Lim, project lead and Senior Lecturer in Public Health in the Faculty of Education, Health and Wellbeing said: "Research has shown that there are positive steps we each can take to take care of our brain health, but without translated or culturally appropriate materials this message doesn't reach everyone across the UK.



Dr Jennifer Lim

"We're delighted to receive this grant from Alzheimer's Research UK's Inspire Fund to ignite discussions about dementia in Chinese communities. This project will build vital capacity and knowledge in Chinese community organisations about dementia and co-create engaging materials to build understanding of brain health."

This £25,000 project forms part of the charity's **Inspire Fund**, which provides funding for projects that engage the public with dementia and the life-changing research going on into the condition.

Projects funded in this year's round are particularly geared towards engaging with underserved audiences, building knowledge in brain health and engaging people with progress in dementia research.

Researchers identify critical knowledge areas for managing the spread of COVID-19

During the pandemic, sharing other people's experiences of robust and clear practical procedures is vital to align with health-care professionals, sharing best practice to manage the spread of the virus. For professionals dealing with the pandemic in healthcare settings, it can prove difficult to access core information for highly knowledge-intensive activities, such as public health problem-solving and decision-making.

This situation called for knowledge mapping to increase the visibility of this information, and facilitate and accelerate the process of locating relevant expertise or experience.



Dr Suresh Renukappa researcher at the University of Wolverhampton along with team members Dr Subashini Suresh and Wala Abdalla and support of Dr Shyam Menon, at The Royal Wolverhampton NHS Trust identified seven areas of critical knowledge that decision-makers should be aware of. The seven areas included:

- Cleaning and disinfection
- Training, education and communication
- Reporting guidance and updates
- Testing
- Infection control measures
- Personal protective equipment
- Potential COVID-19 transmission in health and other care settings

The study concluded that knowledge mapping related to COVID-19 assists in reducing and minimising the risk of transmission of COVID-19 in hospitals, and other health-care settings.

This work makes a major contribution to research on knowledge management (KM) and the management of public health emergencies by demonstrating how knowledge mapping, as one of the most powerful KM approaches, enhancing quick and effective decision-making.

Dr Suresh Renukappa, Senior Lecturer in the Faculty of Science and Engineering said:

"This study offers valuable insights into key and critical knowledge areas, decision-makers need to be aware of, to address the crisis management of COVID-19 effectively. Knowledge maps have been successful to provide effective communication to share vital information for the dissemination of reports, guidance, and collaboration to combine the conclusions of varying reports, thus helping to minimise the potential of COVID-19 transmission and to control the pandemic."

The research has been peer-reviewed and published in the prestigious Journal of Knowledge Management.

Covid prevention campaign launched for vulnerable communities in Zimbabwe

Dr Moses Murandu at the University of Wolverhampton and Dr Julita Maradzika a lecturer in Public Health and Knowledge Management specialist from the University of Zimbabwe have launched a prevention programme to provide education, support and guidance to communities in Zimbabwe protecting themselves against Covid-19.

In March 2020, Dr Murandu and Dr Maradzika formed the 'Covid-19 Transformative Public Health Education' team in Zimbabwe to help communicate

vital to reduce the spread of infection in displaced communities of Mandebvu and Epworth. These communities were considered to be vulnerable to the spread of the infection due to living in overcrowded conditions - making it difficult to adopt social distancing as well as having limited access to clean water and little access to public health education.

The team translated visual key messages about Covid-19 into the local SHONA language – the definition, signs and symptoms, prevention at home, managing the illness, and the importance around isolation, social distancing, nutrition, cleanliness, and face masks.

Story 4 continued on overleaf...



The team also held road shows around the IDP communities using a mobile van to enable them to share this vital information and for them to have the opportunity to access vaccinations and other vital services for Covid-19 prevention. Now, almost two years on, the communities have the education and regular access to the information they need to protect themselves and their loved ones against the virus.

A public health information centre has also been built by the members of the community with support from the University of Zimbabwe, to create a place for people to get the information and healthcare

they require. The team continues to raise awareness through a range of alternative communication methods such as campaigns using loudspeakers, song, and dance to support the community and reduce their vulnerability to Covid-19 and other communicable diseases.

Dr Moses Murandu, Senior Lecturer in Adult Nursing and Researcher in the Faculty of Education, Health and Wellbeing said:

"It was such a privilege to have worked with Dr Maradzika and the wonderful team of village health workers.

"There has been a strong bond of collaboration between the University of Zimbabwe Public Health Department and the University of Wolverhampton's Faculty of Education Health and Wellbeing to work as a team to protect those who need it most.

"By working together, we were able to meet the needs of the community, raise awareness and reduce the spread of the virus. "We were also able to develop a health centre, which is a fantastic outcome of the programme and will greatly benefit the community moving forwards."

Award-winning researcher wraps up development on **biodegradable wound dressings**

Dr Abhishek Gupta



Dr Abhishek Gupta has been working on the seven-year development of new biosynthetic cellulose-based hydrogel dressings loaded with natural

healing ingredients such as silver and curcumin to speed up the healing of chronic wounds. Abhishek has also developed a novel technique to produce curcumin-reduced silver nanoparticles with healing properties.

Abhishek states that the new sustainable dressings, which are more than 95 per cent water, have been specifically created to heal wounds and the natural ingredients could even prevent amputation.

Abhishek has national and international collaborations actively working to roll out the hydrogels for patients with chronic non-healing wounds. Once the hydrogels can be rolled out for public use, Dr Gupta is hopeful they will relieve some pressure from the NHS.

Dr Abhishek Gupta, Lecturer in Anatomy and Physiology, Faculty of Education, Health and Wellbeing said:

"I'm so pleased to have reached this milestone and created brand-new hydrogels with potential application as dressings that could change the lives of thousands of people living with chronic wounds – including their families and people who care for them.

"Our hydrogel dressings are ultra-pure and biosynthetic. As well as the additional healing properties, they are biodegradable – making them an environmentally friendly alternative to conventional dressings that are currently being used worldwide. "Chronic wounds impose an immense socio-economic burden and if they fail to respond to the available medical interventions, may lead to amputation. Although there is a plethora of proprietary wound dressing products already available on the market, due to the increase in the ageing population and incidences of chronic diseases, there is a critical need to continue to develop improved advanced wound dressings.

"I look forward to working with my colleagues, industrial collaborators and students here at the University of Wolverhampton and at Punjabi University as we move on to the next stage of the project and making the dressings available for public use."

A group of PhD students from Punjabi University are working alongside the research team as part of their dissertation. Abhishek, one of our many successful PhD alumnus, also won the Hind Rattan award in India earlier this year in recognition of his outstanding commitment to health and education.

Call for Applications for Readerships, Associate Professorships and Professorships

Each year, internal applications are invited for the conferment of Professorships, Readerships and Associate Professorships, and the process for 2022 is now open.

Applications, which should address the University's eligibility criteria clearly, should contain the following:

- A 'case for support' no longer than four sides of A4, which sets out the applicant's achievements against the criteria outlined in the Professorial/Readership/Associate Professorship policies and procedures, which can all be sourced through the link given below;

A one-page development plan indicating how future activity and work planned for a timescale of 3-5 years would further enhance a professorial, reader or associate professor profile and benefit the University. Maximum length, one side of A4;

- A full academic CV which provides the evidence for the case for support;
- The names of three external referees, in accordance with the guidance;

- An indication of the preferred Professorial, Readership or Associate Professorship designation, should the application be successful.

Applications should be submitted directly by interested applicants and sent electronically to the relevant Dean or Director no later than **25 April 2022**.

The University has three routes to conferment: Research, Learning, and Teaching and Knowledge Exchange, which demonstrates that there is no 'one way' to progress along the academic career path.

As the University strives for equality, diversity and inclusion, more female and BAME staff members are particularly encouraged to apply for the roles, as they are underrepresented at the professorial and senior levels.

For more information on academic and research staff courses, please visit the **Organisational Development** web page. For any queries regarding the process, please email

conferment@wlv.ac.uk.

Professors in clinical practice



Professor Thillagavathie Pillay

Professor Thillagavathie (Tilly) Pillay is the Professor of Neonatology, at the School of Medicine and Clinical Practice at the University. In October 2020, she became an Honorary Consultant Neonatologist undertaking Research and Development at The Royal Wolverhampton NHS Trust.

Professor Tilly Pillay is also a consultant neonatologist at University Hospitals of Leicester NHS Trust. Professor Pillay is the chief investigator on a £1m National Institute of Health research grant, OptiPrem, which provides insights into the best future locations in England for the birth and care of preterm babies between 27-31 weeks gestation.

She is also Director of The STORK Collaborative, a multi-Trust regional parent empowerment training programme aimed at reducing the risks for infant mortality in the West Midlands. Tilly is also an honorary senior lecturer at University of Leicester and University of Birmingham. Tilly's main research interests include optimising health service delivery in perinatal and neonatal care.



Professor Matthew Brookes

Professor Matthew Brookes is a Consultant Clinical Gastroenterologist at the Royal Wolverhampton NHS Trust. He is a Professor of Gastroenterology at the University and an honorary Senior Lecturer at the University of Birmingham. Matthew is involved in research which has been funded by CORE, Bowel and Cancer Research, NiHR Research for patient benefit, Health foundation, NiHR Health Technology Assessment and Crohn's and Colitis UK.

Having successfully published over 70 peer-reviewed papers, Matthew is the deputy chair of the national speciality group and also holds the position of deputy clinical director for the NiHR West Midlands CRN. He is the clinical speciality research lead for Gastroenterology within the West Midlands network and is a member of the research committee at the Royal College of Physicians of London.

In addition, Matthew has previously been chair of the research committee of the British Society of Gastroenterology. Matthew's main research interests are; iron deficiency, anaemia, inflammatory bowel disease, Colorectal cancer and Iron metabolism.

Funding Peer review college



Camelia Dijkstra

The University has developed a Funding Peer Review College (FPRC) to support our research funding activity and to maximise our income generation for research. Peer review is an essential element of developing an application for research funding, as it enhances the quality of proposals and ultimately increases the chances of success.

This also promotes and supports a vibrant and collaborative research environment,

offering colleagues the opportunity to develop new skills, hone critical thinking, formulate feedback directed to peers, and gain insights into funder priorities and strategies.

Membership of the FPRC is open to academic staff across all disciplines and career stages, as well as professional services staff as a recognised development and performance activity. To join, all interested can fill in the short [online form](#).

Members of the FPRC will be invited to interactive workshops to enhance their understanding of peer review, develop skills, and boost confidence. A new mentorship programme will be developed to support further skills development with support from more experienced reviewers.

Membership is on a voluntary basis and will require an element of time commitment to review proposals. Reviewers will be matched to funding proposals according to their expertise, knowledge, and/or success with a

particular funder, following the existing peer review process. More information about the peer review process and Institutional Guide to Peer Review can be found on the Bidding Support Team [webpages](#).

If you have any questions, please contact funding@wlv.ac.uk



Katherine Howard

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