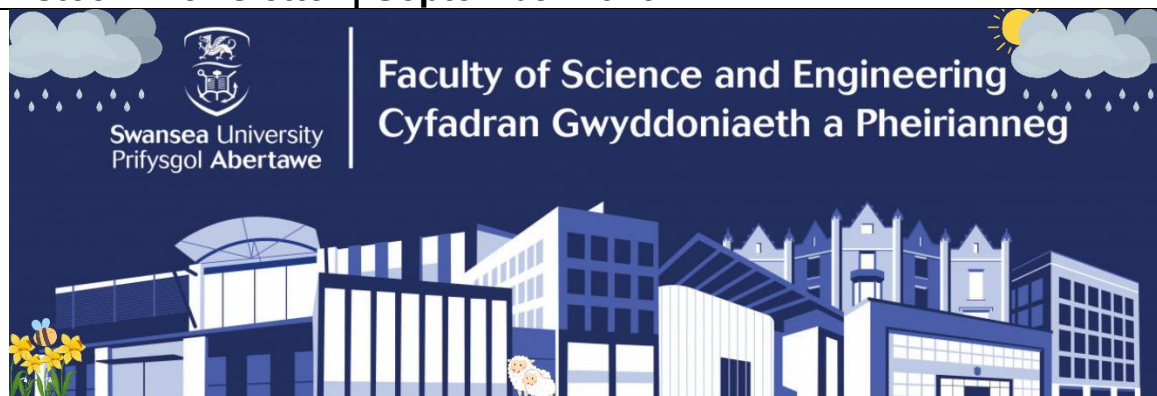




Sent on behalf of Professor Perumal Nithiarasu, Associate Dean for Research, Innovation and Impact

Dear Colleagues,

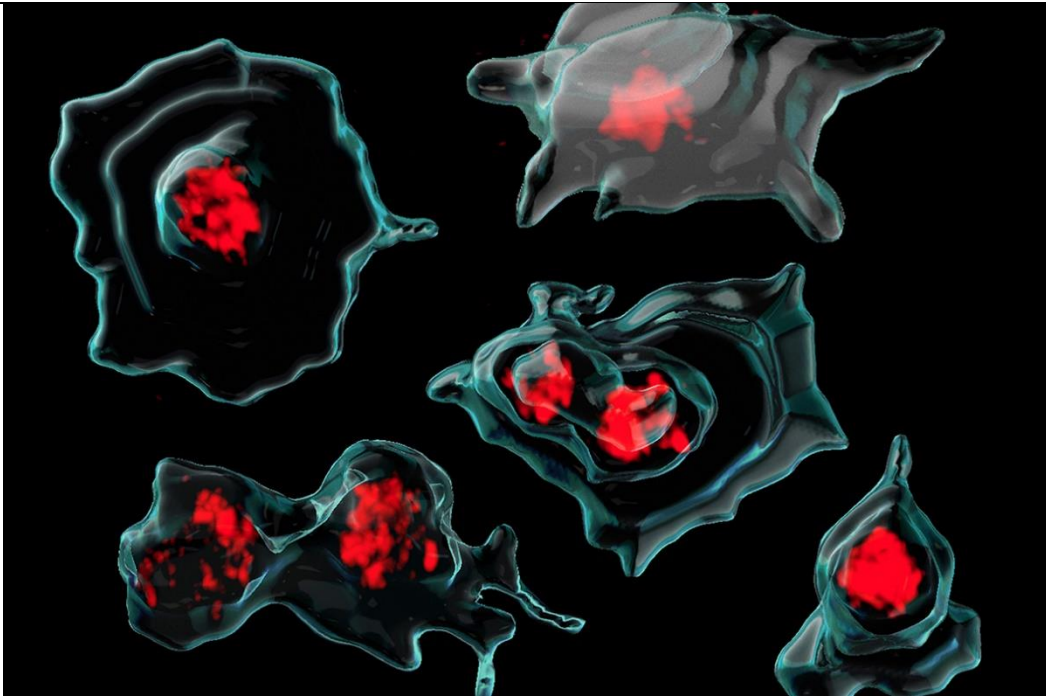
Please read below about some of the Faculty's most recent success stories. We would particularly like to see more from our Professional Services staff for the next email!

Staff News

Platelets found to store DNA — Breakthrough could revolutionise cancer screening

Swansea University has helped uncover a surprising new role for platelets: capturing and storing DNA fragments in the bloodstream, with major implications for early [cancer detection](#).

A collaboration between Oxford, Edinburgh and Swansea Universities funded by Cancer Research UK and published in [Science](#), reveals that platelets—the tiny blood cells best known for their role in clotting— act as active scavengers of DNA circulating in the blood.



Platelets like these capture DNA (red) from the bloodstream

When cells die, they release fragments of DNA into the bloodstream. This “cell-free” DNA is harmful, triggering unwanted immune responses or other health problems. Until now, scientists have not fully understood how the body clears these potentially harmful fragments. The study found that platelets actively absorb stray DNA fragments, helping to clean the blood and maintain immune balance.

The study also shows that platelets capture and store fragments of DNA circulating in the blood, including mutated DNA in patients diagnosed with cancer. Analysis of platelet DNA via a simple blood test revealed the presence of even “pre-cancerous” changes, indicating this may be a powerful technique for the very early detection and prevention of cancer and less invasive than other methods, such as colonoscopies. Analysis of DNA fragments in the blood is emerging as an important screening method in a number of healthcare settings. However, current approaches discard the platelets and only focus on platelet-depleted blood plasma.

[Video clip from BioTechTV](#)

Co-organiser of the International Conference on Smart and Sustainable Manufacturing, South Africa



SAVE THE DATE

1 - 4 September 2026

Gauteng, South Africa



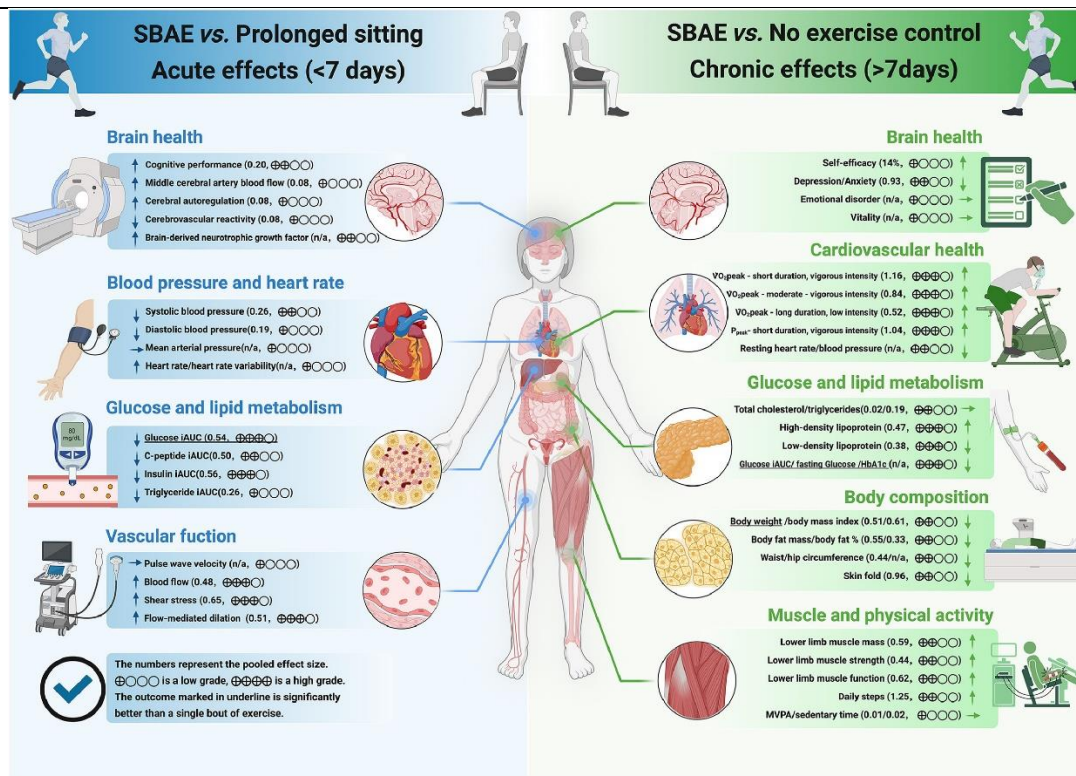
More information will soon be available on the website

<https://icssmconf.com>

[Dr Rajesh Ransing](#) (Mechanical Engineering) has been invited to co-organise the 2nd International Conference on Smart and Sustainable Manufacturing (ICSSM 2026), to be held 1–4 September 2026 in Gauteng, South Africa. Building on the success of ICSSM 2024 in Cape Town, the 2026 edition continues the theme “AI-Driven Systems in the Era of Industry 5.0.”

In further recognition, Dr Ransing has also been invited to organise an AI workshop at the International Conference on Intelligent Systems & Responsible Artificial Intelligence (ICISRAI 2026), hosted by Bells University of Technology, Ota, Nigeria, in collaboration with SRM Institute of Science and Technology, India. Find out more: icssmconf.com • [ICISRAI 2026 conference page](#)

The Efficacy of Short Bouts of Accumulated Exercise



Dr [Richard Metcalfe](#), an Exercise Physiologist in the Department for Sport and Exercise Sciences, has contributed to a [Global Consensus Statement](#) on the efficacy of short bouts of accumulated exercise (sometimes called ‘exercise snacks’) for improving health and fitness. Published in The Journal of Sport and Health Science, the consensus statement brought together a panel of 48 renowned international experts in Sport and Exercise Science from Europe, South America, North America, China, and Australia.

Dr Metcalfe said:

'We know that insufficient levels of physical activity and poor cardiorespiratory fitness are major risk factors for developing chronic diseases like heart disease and diabetes. Accumulating short bouts of physical activity or exercise throughout the day, rather than doing a single longer session, has been suggested as a potential alternative way to help people improve their fitness and reap the health benefits of physical activity. However, research in this field has been fragmented and inconsistent.

We reviewed over 150 research studies to provide much needed clarity on how to prescribe this type of physical activity and how effective it is for improving key markers of health and fitness. Our paper will provide essential information for practitioners to develop effective exercise prescriptions, and a comprehensive scientific evidence base to guide future research and the development of public health guidelines and policies.'

Clinical Exercise Physiologist with the Academy for Healthcare Science (AHCS)

[Dr Richard Metcalfe](#) from the Department of Sport and Exercise Sciences has been awarded accredited status as a [Clinical Exercise Physiologist](#) with the [Academy for Healthcare Science](#) (AHCS).

This accreditation formally recognises the specialist knowledge, skills, and experience that [Clinical Exercise Physiologists](#) bring to supporting people living with, or at risk of, long-term health conditions through safe and effective exercise prescription.

The award coincides with the official launch of the new [MSc in Clinical Exercise Physiology at Swansea University](#), the first of its kind in Wales, which welcomes its first cohort of students this academic year. This course will teach students the critical research-informed knowledge and understanding, along with the diverse range of applied and practical skills, that are needed to work with patients to optimise health, physical function, and quality of life through physical activity and exercise.

IChemE Global Awards 2025

The research project led by [Dr. Francesco Del Giudice](#) from the Complex Fluids Research Group in the Department of Chemical Engineering has been shortlisted as a finalist for the [IChemE Global Awards 2025](#) in the category Best Research Project.

The project originated from the discovery of particle ordering in viscoelastic liquids, which was then harnessed to experimentally demonstrate controlled encapsulation—successfully overcoming the limitations imposed by Poisson statistics. This innovative work has attracted over £250,000 in UKRI funding, led to a patent-pending technology, and catalysed the formation of [Siora Ltd](#), a Swansea University spin-out company dedicated to commercialising the research outcomes.

Established in 1994, the IChemE Global Awards are recognised as the most prestigious accolades in chemical engineering, celebrating excellence across the chemical and process industries worldwide.

Celebrating REF2029 Panel Appointments

We are proud to announce that five members of our academic community have been appointed to the REF2029 expert panels - a recognition of their excellence in research and leadership. Congratulations to all those appointed.

Professor Matt Jones	UoA11	Computer Science and Informatics
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Professor Chenfeng Li	UoA13	Architecture, Built Environment and Planning
Professor Siwan Davies	UoA14	Geography and Environmental Studies
Professor Kelly Mackintosh	UoA24	Sport and Exercise Sciences, Leisure and Tourism
Professor Ian Mabbett	Main Panel B	Physical Sciences, Engineering and Mathematics

Student News

Swansea's Research Ready Programme: Opening Doors to AI Research



This summer, we welcomed ten exceptional undergraduates to Swansea University for the Google DeepMind Research Ready programme - an eight-week initiative designed to break down barriers in AI research. Funded by The Royal Academy of Engineering, Google DeepMind and Hg Foundation, the programme specifically targets students facing social or financial obstacles to research careers.

Led by [Dr Alma Rahat](#) and [Dr Megan Venn-Wycherley](#), the programme combined individual research projects with learning opportunities about AI and research. Students tackled real-world challenges from algorithmic trading to dementia diagnosis using AI, while learning from experts from Swansea and beyond, including Dr Piotr Mirowski (DeepMind), Professor Jonathan Fieldsend (Exeter), and researchers from the Turing Institute.

REF2029 Canvas Hub

A reminder that a new Canvas hub has been published. Developed by the REF Officers team, this is a central repository for the REF2029 documentation, guidance, resources and news.

The joining link is <https://canvas.swansea.ac.uk/enroll/BDY36G>. Please enable notifications as this site will be updated with guidance, news, consultations etc as they are received.

Keep in Touch!

If you are aware of any recent achievements to share, either for yourself or for any members of your team, we would love to hear about them! We're interested in stories from academic and professional services communities. Please email any news to **FSE Research** (fse-research@swansea.ac.uk). **Deadline for submissions: 20th of each month.**

If you would like to promote a research event on the FSE Events webpage, please contact fse-research@swansea.ac.uk

- [Research Support Hub](#)
- [Research at the Faculty of Science and Engineering](#)
- [Exploring Global Problems Podcast](#)
- [Upcoming Events](#)
- [What's going on in FSE-Exec](#)
- [Past Esteem Newsletters](#)