



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

Centre of Excellence in Ocean Energy and Hydrogen recently completed InnovateUK funded project with CGEN Engineering



The Centre of Excellence in Ocean Energy and Hydrogen has recently completed an InnovateUK funded project with CGEN Engineering. The aim is to demonstrate a novel modular permanent magnet generator at the META test site in Pembrokeshire. The TideGEN project is a critical step towards building a UK-based supply chain and

brings together academic expertise, industry know-how, and local manufacturing capability to validate CGEN's next-generation generator design. With support from UK partners including Rudders and Fountain Design Ltd, the project is developing, building, and testing a modular generator system designed specifically for tidal applications. The photo shows the novel generator system attached to the Swansea University designed 3m diameter tidal turbine.

Please see the video about CGEN's innovative technology through this link:

https://www.linkedin.com/posts/meta-wales_gb-skip-navigation-search-create-ugcPost-7399774092024836096-Mwzg?utm_source=share&utm_medium=member_desktop&rcm=ACoAAiiMogBQbYyDc4hoKMmbS67gKKx_4ZK2Kk

Professor Kilduff recently appointed as a Trustee for Ospreys in the Community (OitC)



Professor Kilduff has recently been appointed as a Trustee for Ospreys in the Community (OitC). In this role, one of his primary responsibilities will be to serve as a liaison between the university and OitC (<https://www.ospreysrugby.com/ospreys-community>).

The university values its longstanding partnerships with local sporting organisations and is committed to ensuring these collaborations continue to benefit both the partners and the university community. Professor Kilduff will work alongside key academics to further develop this partnership, providing opportunities for staff and students across a broad range of activities.

If any staff members would like to learn more about OitC, the partnership, or how to get involved, please email Liam at l.kilduff@swansea.ac.uk.

Swansea University shortlisted for Knowledge Exchange Awards 2025



[Strategic Partnerships Lead – Abi Lewis collecting our finalist certificate.]

Forging the Future: A Strategic Partnership Powering Fusion Innovation and Skills, highlighted the impact being achieved by Swansea's strategic partnership with the UK Atomic Energy Authority (UKAEA).

The advancements being made in research and learning and teaching caught the attention of the KE Awards panel, we were delighted to be shortlisted and get recognition for this work.

There are many people to thank for the growth of this partnership, Professor Perumal Nithiarasu, Professor Nick Lavery, Professor Rob Lancaster, Professor Richard Jonston Dr Andrew Jones and Dr Steve Jones to name but a few.

As with all our strategic partnerships, our work with the UKAEA will continue to advance and we look forward to officially announcing an exciting new collaboration in the new year! For more information on this partnership, pls contact Abi Lewis : a.l.lewis@Swansea.ac.uk.

Swansea University Biosciences Staff in Cross-Institution Organising Committee for 15th Anniversary Venom Conference



Associate Professor Kevin Arbuckle co-organised a successful annual conference in Bangor, Venom Day, in collaboration with colleagues from Newcastle and Bangor universities. This event represents an unusual combination of a scientific conference comprised of presentation of new research on venomous animals and their venoms, and a remit for speakers to ensure presentations are widely accessible. Consequently, Venom Day 2025 was attended by the maximum capacity of 150 people from professors to interested laypersons, plus an additional 12 live online attendees. A social evening on Friday 5th December provided much opportunity for networking and collaboration building, followed on Saturday 6th December by 16 presentations from 8 institutions across 4 countries, ending with a conference dinner and social. The meeting draws a large proportion of the venom research community in the UK (notwithstanding attendees from outside the UK) each year and is widely praised as a major event in the calendar which registration sells out rapidly each year; and 2025 was no exception. This is a core event for supporting research activity and collaboration development in UK venom research, and Kevin Arbuckle has been instrumental in ensuring a strong Swansea University representation.

The Snakebite Uganda Network initiated by Swansea University Bioscience Team



Associate Professors Kevin Arbuckle, Hazel Nichols and PhD student Megan Nicholl ran a 'Snakebite Uganda Collaboration Meeting' in Entebbe, Uganda. This comprised of a full day workshop attended by 12 participants from five organisations including Makerere University, Herp Fauna Foundation, and Dumaic Global Health. Eight attendees gave presentations covering diverse topics from snakebite prevention, treatment options and availability, through to snake conservation and biodiversity. We also held discussions on how we could work together to reduce human-snake conflict and boost health outcomes from bites.

The full day event was followed by smaller meetings with key participants. The meeting, which was funded by Taith, has led to the establishment of a 'Snakebite Uganda Research Group' comprising 14 members from seven institutions in the UK and Uganda and will lead to enhanced collaboration and grant applications. Together, we hope to substantially reduce the burden of snakebite in Uganda to the benefit of people and snakes.

Leadership Award for Outstanding Contributions to Semiconductor Innovation – Prof Owen Guy



In November, Prof Owen Guy was presented with the Leadership Award for Outstanding Contributions to Semiconductor Innovation during the SEMICON Europa Conference, which took place in Munich. When asked about the award, Prof Guy said the following: "I'm deeply honoured to receive the SEMI Impact Award. It recognises the tremendous progress we have made in building the talent pipeline and harnessing our amazing Centre for Integrative Materials (CISM) for training and upskilling future generations of the semiconductor industry. This recognition reflects the collective effort of our community in advancing semiconductor education, outreach and skills — from our close collaboration with SEMI through the Talent Forums and ChipQuest Challenge, to our research within the Compound Semiconductor Cluster in Wales and European consortia on silicon carbide, graphene, and manufacturing innovation across Europe. I'm proud to contribute to shaping the next generation of semiconductor talent and technology."

The Hydrogen for Mobile Applications Workshop



The Hydrogen for Mobile Applications Workshop was held at Swansea University on 9 December 2025, led by Dr Zhaoxin Ren from Aerospace Engineering, attracting over 30 participants from more than 15 institutions across academia and industry. The programme featured four themed sessions: zero-carbon fuel combustion, liquid hydrogen and aviation, materials and infrastructure perspectives, and hydrogen in transport. Presentations covered topics ranging from ammonia-hydrogen flame dynamics, NOx reduction strategies and direct hydrogen injection, to liquid hydrogen thermofluids challenges, aviation integration, composite materials for hydrogen, hydrogen safety, and applications in rail, road and aviation. The workshop highlighted hydrogen's critical role across multiple sectors – from aviation, rail, and road transport to future home heating – and reinforced Swansea's growing profile in hydrogen research and collaboration.

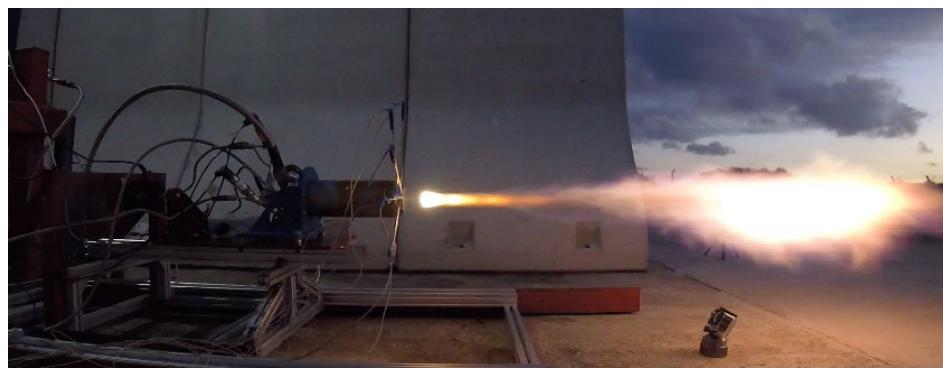
Centre of Expertise in Behavioural Ecology and Evolution at PSGB Winter Meeting

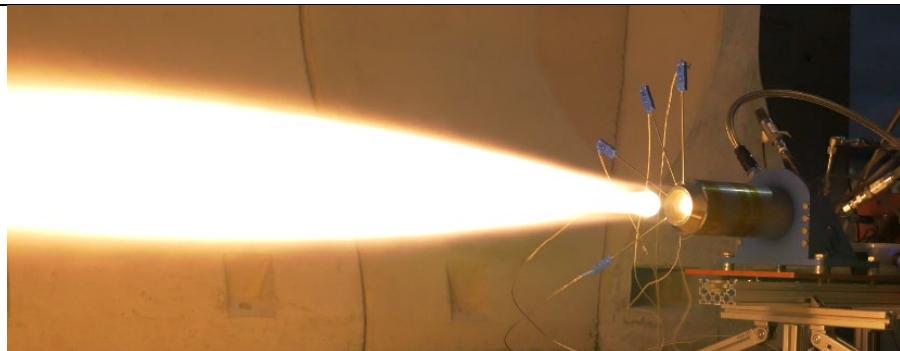
27–28 November: Eight members of the Centre of Expertise in Behavioural Ecology and Evolution (CEBEE, Biosciences Department) attended the [Primate Society of Great Britain \(PSGB\) Winter Meeting](#) at National Museum Cardiff. [Ines Fürtbauer](#), [Will Allen](#), and [Andrew King](#) co-organised the event which showcased excellent research from [PhD students](#) Jemima Frame and Marco Fele, postdoctoral researcher [Caitlin Hawley](#), and [Andrew King](#). A highlight of the meeting was the Plenary Lecture delivered by UKRI/Marie Curie Fellow [Cécile Sarabian](#). The conference reflected the strong presence and leadership of our group within the UK primatology and behavioural ecology community.



Centre of Expertise in Behavioural Ecology and Evolution members (from left to right) Jemima Frame, Marco Fele, Cécile Sarabian, Will Allen, Ines Fürtbauer, Oliver Davidson, Andrew King, and Caitlin Hawley at the Primate Society of Great Britain (PSGB) Winter Meeting at National Museum Cardiff.

SwansSEDS launches “Puff,” the first liquid rocket engine designed and manufactured in Wales





In November 2025, SwanSEDS - the university's Rocketry and Space Society - successfully hot-fired "Puff," the first liquid rocket engine designed and manufactured in Wales. In collaboration with Snowdonia Space Centre and Newton Launch Systems Ltd, the team conducted several tests after developing the engine for last year's Race2Space competition. The engine produced up to 1.2 kN of thrust, with its longest sustained burn lasting 5 seconds - a major step forward for student rocketry in Wales.

This milestone reflects the combined efforts of a diverse and technically gifted SwanSEDS team, who leveraged campus resources like the CREU Manufactory makerspace to bring their designs from concept to reality.

Looking ahead, SwanSEDS plans to push innovation further by developing new rocket engines using additive manufacturing. With continued support from faculty, staff, and campus resources, they aim to compete in upcoming challenges such as Race2Space 2026.



Matthew Davies secures Green Future Fellowship

Project focus

This Green Future Fellowship, ASPECT - Advancing Sustainable Perovskite Energy as a Circular Technology, will allow Matthew to accelerate work on sustainable and circular perovskite solar technologies. The central idea is that if the UK wishes to build a local solar manufacturing industry, sustainability and design for circular economy must be the value-added components that make this competitive and future ready. The Fellowship will generate the science, tools and manufacturing approaches needed to design perovskite photovoltaics that are lower impact, recyclable and suited to circular business models.

What this means for Swansea and the UK

This Fellowship strengthens Swansea University's position as a UK leader in sustainable solar research and advanced manufacturing. It builds directly on the excellent progress achieved at Swansea in perovskite photovoltaics, including the major advances by Professor Trystan Watson and the SPECIFIC team in the scale up of perovskite solar modules. The Fellowship builds on our capabilities in photophysics, sustainable materials development and design for circular economy approaches to manufacturing, with strong links to SPECIFIC pilot-line facilities. The work is UK centred and will create knowledge and skills that support national solar manufacturing ambitions and net zero goals.

Links to international programmes

While the Fellowship is focused on the UK, the advances it delivers will naturally feed into our international collaborations, including our UNESCO Chair in Sustainable energy Technologies, TEA@SUNRISE and REACH PSM. These programmes provide pathways

for shared learning and global impact, ensuring the UK's leadership in sustainable perovskite technologies is connected to broader efforts on energy access, capacity building, and responsible innovation. (Project links if useful - <https://unesco.org.uk/about/chairs/sustainable-energy-technologies> , <https://www.sunrisenetwork.org/tea-at-sunrise/> , <https://www.sunrisenetwork.org/reach-psm/>)

Impact

The Fellowship aims to provide the scientific basis and practical tools required to make perovskite solar technologies more durable, safer and fully recyclable, enabling sustainable manufacturing at scale. The work will deliver design guidelines, circular manufacturing approaches and accessible methods that can be used by industry, government, and research partners, helping to shape a long-term circular economy for solar energy in the UK.

Matthew states "I am delighted to receive this ten-year Green Future Fellowship. It was an extremely competitive process, and I am grateful for the opportunity to accelerate our work on sustainable and circular perovskite solar technologies. Although this is a personal fellowship, it reflects the outstanding progress made at Swansea by a much larger team. The strength of our research environment, from materials and photophysics to scalable manufacturing, has made this possible. I look forward to using this Fellowship to help position the UK at the forefront of sustainable solar manufacturing."

Student News

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](#)

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- [Past Esteem Newsletters](#)