



Awards 2025

Research Project of the Year: STEM

Institution Name	University of Cambridge
Submission title or project name	PROFILE trial
Nominee / key personnel	The PROFILE trial team
URL	https://www.cam.ac.uk/stories/crohns-disease-therapy
Submission	Crohn's disease (CD) is a chronic inflammatory condition that can have a profound health and socio-economic impact on patients, typically affecting educational achievement, relationships and employment. PROFILE was a clinical trial for patients with newly diagnosed Crohn's disease that investigated whether offering early biologic therapy from the point of diagnosis improved outcomes. The results were dramatic, proving that early effective therapy was highly efficacious and the safer treatment strategy for patients. Colleagues and patients around the world have highlighted how these findings have helped to raise the bar and have given hope as to what can be achieved for those newly diagnosed with Crohn's disease. Given the impact of the findings and the patient benefits, the PROFILE team has been awarded several awards, including a research impact award from the National Institute for Health and Care Research (NIHR) and the European Crohn's and Colitis Organisation (ECCO) investigator-initiated study of the year award.



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Research Project of the Year: STEM

Institution Name	Kingston University
Submission title or project name	Pioneering textile recycling with AI and robotics
Nominee / key personnel	Professor Vasilis Argyriou
URL	https://kuil.kingston.ac.uk/pages/refibres.html https://kuil.kingston.ac.uk/pages/ai4fibres.html
Submission	The UK leads Europe in fast fashion waste, discarding more than 200,000 tonnes of textiles annually. In response, the Kingston-based sustainable fashion brand KAPDAA partnered with Kingston University on AI4Fibres, led by Vasilis Argyriou, to develop AI-driven textile recycling solutions. Between September 2023 and 2024, Professor Argyriou secured £3 million from Innovate UK for three major projects: AI4Fibres, Portable AiFibres and ReFibres. The initiative has been praised nationally for its portability and its accuracy in sorting blended materials, including recognition at the 2023 AI Safety Summit. Pilots processed more than 10 tonnes of waste, achieving 92 per cent sorting accuracy and the capacity to handle 30 tonnes weekly. The technology enables transformation of waste into products such as loft insulation and carpet underlay. Key innovations include rapid robotic sorting, UV sterilisation, long-fibre extraction and material-binding, supporting up to 16 fabric types, including challenging blends – paving the way for sustainable textile reuse.



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Research Project of the Year: STEM

Institution Name	University of Birmingham
Submission title or project name	E-MOTIVE: early detection of post-partum haemorrhage and treatment using the World Health Organization's MOTIVE 'first response' bundle
Nominee / key personnel	The E-MOTIVE team, led by Professor Arri Coomarasamy
URL	https://www.birmingham.ac.uk/research/bctu/trials/womens/emotive/e-motive
Submission	E-MOTIVE, a global trial led by the University of Birmingham, has transformed maternal healthcare, improving the detection and treatment of post-partum haemorrhage (PPH) – the leading cause of maternal death worldwide. Coordinated by the Birmingham Clinical Trials Unit across Kenya, Nigeria, South Africa and Tanzania, the trial showed a 60 per cent reduction in severe PPH and significant increases in diagnosis and treatment rates. Despite challenges such as medicine availability, the intervention proved to be a cost-effective, scalable solution to making childbirth safer. The research, led by Arri Coomarasamy, has quickly gained international recognition and adoption. E-MOTIVE recommendations have been included in global road maps for PPH, endorsed by international professional bodies for maternal health practitioners and adopted into national guidelines in several countries. With continued international collaboration for implementation and support from the World Health Organization and the Gates Foundation, E-MOTIVE is projected to save up to 20,000 lives annually.



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Research Project of the Year: STEM

Institution Name	University of Lancashire
Submission title or project name	Forens-OMICS: advancing post-mortem investigations through cutting-edge molecular science
Nominee / key personnel	Dr Noemi Procopio (principal investigator, Forens-OMICS, and senior research fellow in forensic science)
URL	https://www.lancashire.ac.uk/research/institutes/imis/forens-omics
Submission	The Forens-OMICS project is pioneering the use of cutting-edge “-omics” technologies – proteomics, metabolomics and microbial DNA profiling – to revolutionise how forensic scientists estimate time since death and identify human remains. By analysing biomolecular changes in bones and soft tissues, the project delivers more accurate, reproducible and court-admissible methods, particularly for skeletonised or decomposed cases. Collaborations with international animal and human taphonomy facilities, including ones in North Dakota and Texas, have enabled significant improvement in the accuracy of time-since-death estimations. This work led to real-world applications, including microbiome-based evidence being accepted in an Italian murder case and a UK police-supported project on using the microbiome for individual identification. The project is also influencing international policy through a study funded by the National Institute of Justice on how bone treatment affects molecular preservation.



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Research Project of the Year: STEM

Institution Name	University of Reading
Submission title or project name	Using AI to tackle health inequalities
Nominee / key personnel	Professor Weizi (Vicky) Li (University of Reading); Nicholas Berin Chan (University of Reading); Eghosa Bazuaye (Royal Berkshire Hospital); Toluwanimi Akinola (Royal Berkshire Hospital); Kiki Kontra (Royal Berkshire Hospital)
URL	https://research.reading.ac.uk/engagement-and-impact/reducing-missed-outpatient-appointments-and-health-inequalities-through-ai/
Submission	“Did not attend” (DNA) appointments pose a significant challenge for the NHS, with 11.8 million missed hospital appointments in 2024 costing nearly £1.9 billion and exacerbating waiting lists. Patients in deprived neighbourhoods are twice as likely to miss appointments because of barriers such as transport difficulties and work commitments, widening health inequalities. To tackle this, Weizi Li's team co-developed the first explainable AI decision-support system in the NHS with Royal Berkshire NHS Foundation Trust (RBFT). Trained on more than 500,000 appointments across 80-plus specialties, the AI predicts non-attendance risk with 92 per cent accuracy and highlights individual risk factors such as deprivation level and mental health issues. Staff then call high-risk patients, using AI-generated insights to guide conversations and deliver targeted support based on each patient's needs. Operational across all RBFT sites and departments since 2023, the system supports 694,199 annual appointments and has reduced high-risk non-attendance by 40 per cent, delivering an estimated £250,000 in cost savings.



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Research Project of the Year: STEM

Institution Name	University of West London
Submission title or project name	Project UNITY
Nominee / key personnel	Dr Massoud Zolgharni
URL	https://www.uwl.ac.uk/research/research-impact/unity-cardiac-imaging-artificial-intelligence
Submission	Project UNITY, funded by the British Heart Foundation, is a collaboration between the University of West London, Imperial College London, 22 NHS trusts and the British Society of Echocardiography. It aims to enhance echocardiography, a key cardiac diagnostic tool, by integrating AI to address challenges such as image variability and subjective interpretation. UWL's Intelligent Sensing and Vision Lab developed deep learning models for echocardiography, achieving over 95 per cent accuracy in automated view classification and clinician-level cardiac timing detection. The project has created a rich training resource with more than 200,000 annotated cases and has led to significant societal and clinical benefits, including quicker, more consistent scans and reduced diagnostic variability. Project UNITY has also spurred new research initiatives and industry engagement, making AI in healthcare more accessible to the public.