

Engaging Girls in STEM through the u-Care Project

Dr. Lynn Paterson, an Associate Professor in the School of Engineering and Physical Sciences, and Alex Burden, a Research Technician hailing from the University of Edinburgh have brought applications and careers in physics and engineering to life for around 160 Scottish school girls. They accomplished this through their participation in two recent 'Girls into STEM' events organised by the Institute of Physics (IoP) under the banner of the interdisciplinary project, 'u-Care'. u-Care is funded by the EPSRC Healthcare Technologies Programme and aims to develop tools and technologies within the Physical Sciences domain, encompassing innovations such as new laser sources of UV light, novel fibre optics, and pioneering precision engineering that can be used to help solve current and future healthcare challenges.

Conducting hands-on workshops at Mary Erskine High School in Edinburgh and the Advanced Research Centre at the University of Glasgow, Lynn and Alex immersed students in activities from optics experiments, microscopy of lung tissue, simulating bronchoscopy inspections on dummies, and unravelling the wonders of UV light in colour chemistry.

Reflecting on the experience, Lynn stated, "It was great to bridge the concepts the students are currently studying in S3 physics with the practical applications inherent in the u-Care project—concepts like refraction, the electromagnetic spectrum, and total internal reflection."

Alex stated, "The girls and their teachers displayed a keen interest in understanding how interdisciplinary teams of physicists, biologists, engineers, and clinicians converge to tackle healthcare challenges."

Lynn continued, "Our aim was to equip the girls with insights into the scientific underpinnings of our project, underscore the significance of teamwork, and illuminate the diverse applications of physics, including healthcare."

For further information on the u-Care project, visit www.u-care.ac.uk



Lynn Paterson and Alex Burden during the IoP Girls into STEM workshop at Mary Erskine High School