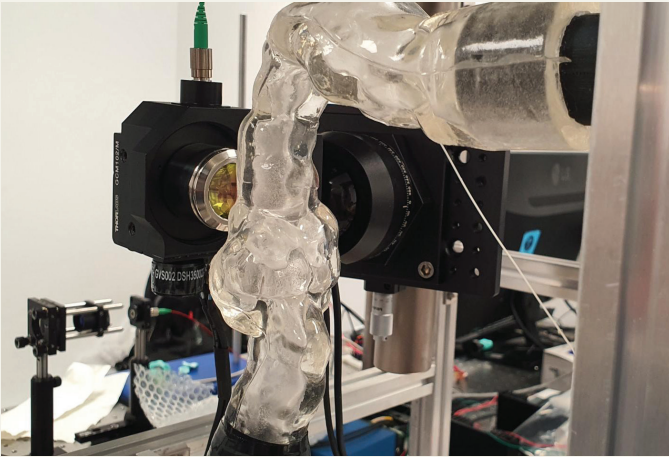


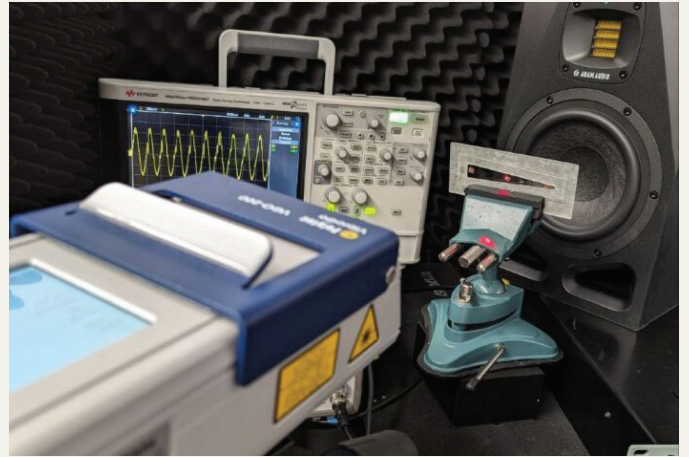
THEME 5: HEALTH TECHNOLOGIES

Our research in this theme aims to improve healthcare outcomes through innovative scientific exploration in sensors and imaging, microfluidics and biomechanics – all working together to transform medical care. Advanced tools in sensors and imaging allow for non-invasive visualisation within the body, aiding in diagnoses and treatment monitoring. Microfluidics deals with minute fluids, making medicines more precise and tests more effective. Biomechanics studies how living things move, providing valuable insights for advancing medical knowledge and improving sports performance. This collective effort is reshaping healthcare through smart technology and science, improving medical practices and people's health. At the School of Engineering, our specialised group focuses on biosensing, microfluidics, imaging and advanced drug delivery technologies. This expertise empowers healthcare professionals to use the latest technologies, paving the way for improved health strategies.



HUMAN RESPIRATORY DEVICES

Our multidisciplinary research creates physiologically accurate human airways to assess respiratory device efficacies, pollutant effects and drug delivery mechanisms. Harnessing advanced imaging, laser diagnostics, computational modelling and tissue engineering, our unique model aims to redefine depth and fidelity in the field.



ARTIFICIAL INNER EAR HAIR CELL SENSORS

Developing artificial inner ear hair cell sensors is vital in medical technology and sensory restoration. By using nanotechnology and advanced manufacturing techniques, we have successfully created hair cell sensors closely resembling the complex structure of natural inner ear hair cells. These devices represent a significant advancement in addressing these widespread sensory challenges.

