TOP 10%
IN UK FOR RESEARCH IMPACT (4*/3*)
ULSTER UNIVERSITY (REF 2021)

JOINT 1ST
IN UK FOR RESEARCH ENVIRONMENT
ALLIED HEALTH, DENTISTRY NURSING AND PHARMACY (REF 2021)

87%
WORLD-LEADING OR INTERNATIONALLY EXCELLENT RESEARCH
ULSTER UNIVERSITY (REF 2021)

Vascular Platform, HISU, BMSRI, Coleraine

A vascular suite within the Human Intervention studies Unit (HISU), dedicated to enhancing cardiovascular research at Ulster and with our business and industry partners.

- Launched in 2019 through partnership between Professor Mary Ward, Nutrition Innovation Centre for Food and Health (NICHE) and Professor Sumantra (Shumone) Ray, Professor of Global Health at Ulster and Executive Director of the NNEdPro Global Institute for Food, Nutrition and Health
- Gold standard equipment providing critical indicators of vascular health and future cardiovascular risk
- Provides key scientific insights into both the microvascular and macrovascular parts of the cardiovascular system

NNEDPRO GLOBAL INSTITUTE FOR FOOD, NUTRITION AND HEALTH

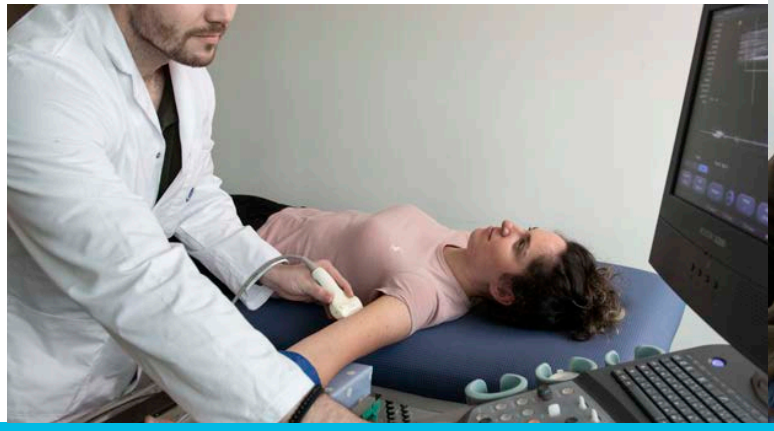
Social Enterprise | Independent Research Organisation
Education and Training Centre | Advisory Services

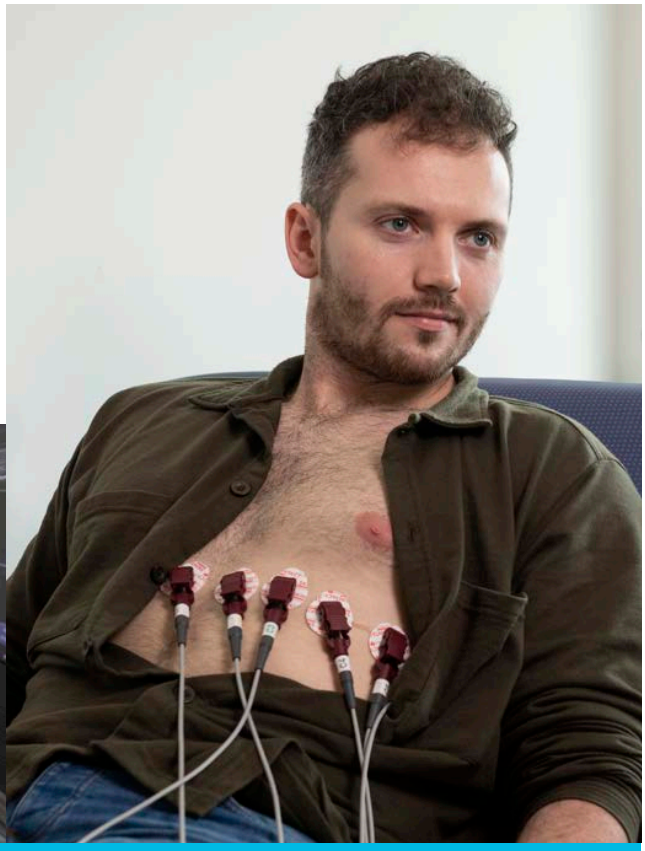
Technology critical for

- Ultrasound imaging of cardiovascular system
- Measures of both arterial stiffness and thickness
- Central and brachial blood pressure and pulse wave analysis
- Gold standard and proxy measures of endothelial function

Ulster University

State of the Art Instrumentation, World-leading Research



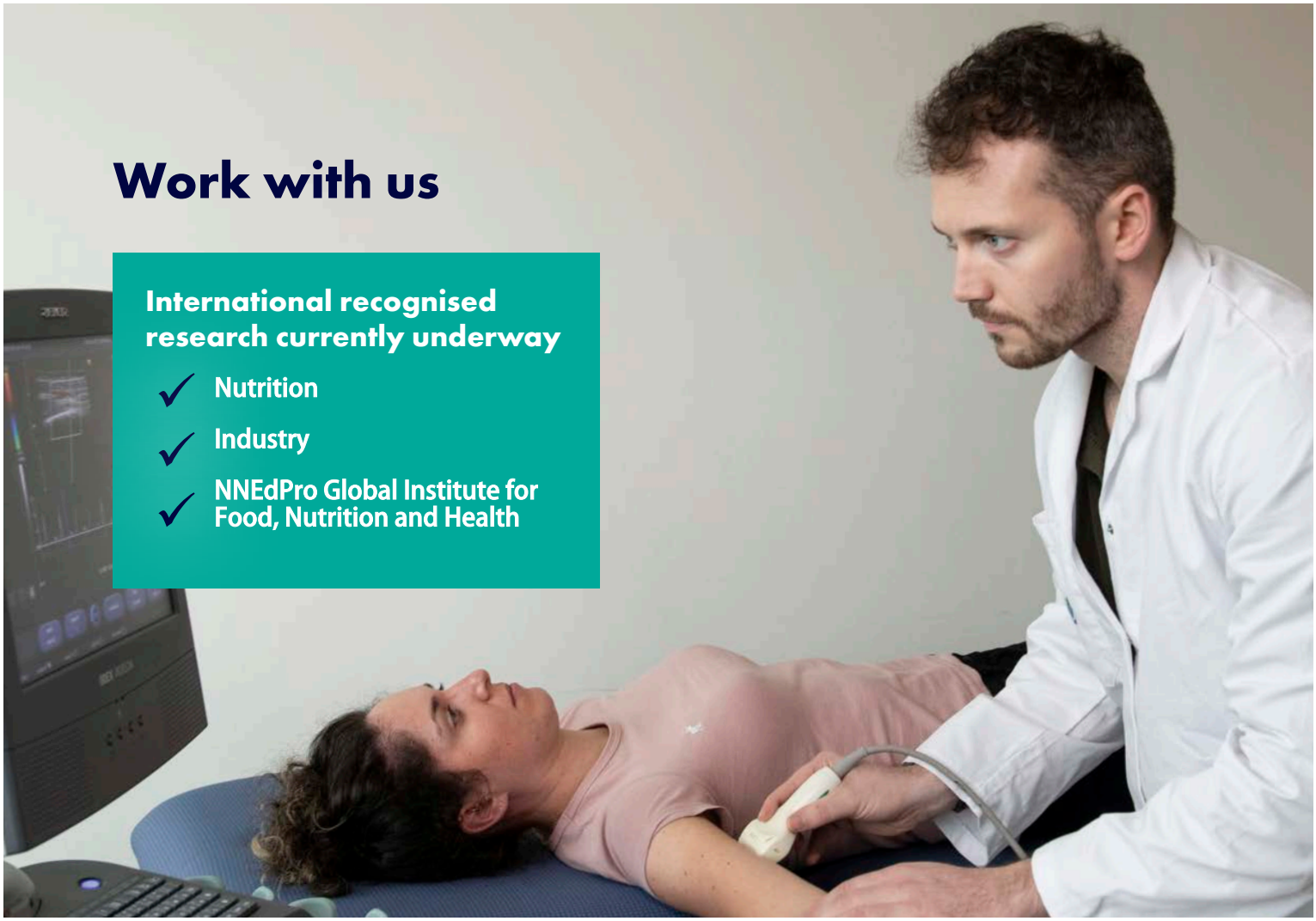


Ulster University a World-leading Research Institute in:

Nutrition | Agri-Food | Diabetes | Vision | Genomics | Cancer Therapeutics
Pharmacy | Pharmaceutical Sciences | Healthy Ageing | Personalised Medicine

Non-invasive assessment of cardiovascular health using:

- **Ultrasound:** used for the imaging of larger arteries of the cardiovascular system and measuring/identifying arterial thickness. Changes to the size of the artery in response to a compression by performing a stress response test and how quickly it recovers, known as flow-mediated dilation (FMD), provides a very real measure of cardiovascular health and can predict future cardiovascular risk. The state-of-the-art UNEX EF, enables beat by beat measurements, automatic tracking of the artery image and instant analysis when measuring FMD, the gold standard in Endothelial Function Examination.
- **SphygmoCor:** the gold standard for measuring Pulse Wave Analysis and Pulse Wave Velocity (blood flow speed), a key indicator of the stiffness of a person's arteries, providing critical information that cannot be obtained from the standard cuff blood pressure measurement. Central blood pressure measurements such as central aortic systolic blood pressure, central pulse pressure, and an aortic augmentation index are also reported.
- **Vicorder:** an alternate way of measuring blood flow velocity between transit times between the carotid and femoral artery, a key indicator of arterial stiffness.
- **Laser Doppler imaging and iontophoresis:** Used for the diagnosis and study of endothelial dysfunction by measuring skin blood flow on the forearm, providing an indicator of microvascular health.
- Opportunity to draw on the expertise provided by the collaboration between NICHE and NNEdPro Global Centre for Nutrition and Health.



Work with us

International recognised research currently underway

- ✓ Nutrition
- ✓ Industry
- ✓ NNEdPro Global Institute for Food, Nutrition and Health

The Vascular Platform within the HISU offers specialist facilities to Ulster University research groups and significant collaborative opportunities for industry.
See HISU brochure for further information on the facility.

Dr Julie Sittlington

Contact Us

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