



JOIN THE RESEARCH COMMUNITY AT THE NATIONAL HORIZONS CENTRE

The National Horizons Centre (NHC) is an exciting new £22m research, teaching and training facility sitting at the heart of a cluster of excellence on Darlington's Central Park alongside the National Biologics Manufacturing Centre and the Centre for Professional and Executive Development.

Established to work in partnership with the NHS, academia and industry to address the needs of the healthcare and biosciences sectors, the NHC offers state-of-the-art facilities and opportunities to collaborate with our thriving research community. We are looking for clinicians, biomedical scientists and allied healthcare professionals to develop, lead and support research and innovation with the NHC.

RESEARCH

Collaborate with our academics and researchers working across our four research themes to make real-world impact:

Health and Disease



Using cutting-edge techniques to understand the underlying biology of human diseases and pathogens working across basic, translational research and public health to improve patient outcomes.

Biotechnology and Analytics



Optimise and develop new applications and processes in healthcare, biopharmaceuticals and biotechnology in areas such as drug manufacturing, biopharmaceutical, biotechnology and biosensor development.

Bioinformatics and Data Science



With a focus on harnessing data analysis and modelling we have expertise in omics data analysis and interpretation, digital healthcare, machine-learning, survival analysis, 3D imaging and virtual reality.

Sustainable Planet



Our research addresses pressing global issues including climate change and emerging diseases through enhancing ecosystem resilience, improving global sustainability, as well as levelling-up healthcare across the region and beyond.

Avenues to Explore

- > Develop your research question and work alongside our academics.
- > Gain support to develop ideas and write grants and Fellowships.
- > Join our PhD student supervisory teams and develop research projects.
- > Support research through patient sample and data collection.
- > Develop biological studies within clinical trials to address unmet clinical questions.
- > Become involved in networking and knowledge exchange events and research symposiums.

SKILLS AND FACILITIES

We have state-of-the-art laboratories, facilities and bioinformatics suite for research. Omics analyses and next-generation sequencing, cell culture facilities, flow cytometry and cell sorting, proteomics, histology, microscopy, bioprocessing, VR, 3D imaging, digital and mass spectrometry in our Waters Centre of Innovation.

PROFESSIONAL DEVELOPMENT

We support professional CPD and apprenticeships as well as a range of taught undergraduate and postgraduate programmes, including masters and PhD projects. We also offer support for bespoke CPD Education Days and professional training as well as the opportunity for you to teach the next generation of scientists and healthcare professionals.

To find out more contact

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RESEARCH AT THE NATIONAL HORIZONS CENTRE AT TEESSIDE UNIVERSITY

The National Horizons Centre is a centre of excellence for multi-disciplinary biosciences research and we would like to work with you. Some example of areas of active research are:



Other areas to explore

- > Adult and paediatric cancers, e.g. ovarian, prostate, pancreatic, lymphoma, breast and others.
- > Respiratory, gastrointestinal, Alzheimer's and Parkinson's disease, dermatology, neonates and female health.
- > Antibiotic resistance, host-pathogen interactions and microbiome.
- > Drug repurposing, bioprocessing, biomanufacturing, biosimilars and biopharmaceuticals.
- > Commercial partnerships with the biotechnology, biopharmaceutical and life sciences sector.
- > Global health and other areas of unmet clinical and healthcare need.

BIOMARKER IDENTIFICATION AND SCREENING

Implementation of integrated approaches to identify diagnostic and prognostic biomarkers (e.g. next-generation sequencing, mass spectrometry).

EARLY DETECTION AND DIAGNOSIS

Detection of biomarkers at an early stage of disease development and progression (e.g. cell-free DNA, proteomics, microscopy) and development of cost-effective biosensors to be used in the clinic.

CLINICAL TRIALS

Apply a range of technologies and approaches to develop biological studies alongside new and ongoing clinical trials.

DIGITAL HEALTHCARE AND IMAGING

Application of big data, artificial intelligence, diagnostics, 3D imaging, microscopy, virtual reality, machine learning, bioinformatics and complex data integration.

DISEASE MODELS AND DRUG DISCOVERY

Development disease models to study the biology of disease and investigate response to drugs, including mechanisms of drug resistance (e.g. 3D spheroids, Drosophila, CRISPR/Cas9 gene editing).

WORKING WITH INDUSTRY

Developing products to be translated to the clinic and optimising processes for manufacturing of biopharmaceuticals, advanced therapies and vaccines.

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