



Discover – Develop – Deliver

A UK centre of excellence for the bioscience industry

JOIN
OUR
TEAM

tees.ac.uk/nhc



WELCOME

Thank you for your interest in joining the team at our National Horizons Centre.

Teesside University is a high-performing global institution, committed to delivering an outstanding student and learning experience. As an anchor institution we work in partnership with local organisations and businesses, contributing to our region in a way many universities aspire to.

Our £22.3m National Horizons Centre (NHC) is a key part of this mission. The NHC opened in 2019 as a national centre of excellence for the bioscience industries, working with the sector to provide a rich pipeline of graduate talent while helping to grow existing skills through industry-focused training, research and partnerships.

In the relatively short-time since it opened, the NHC has already made a huge impact, providing equipment and expertise to assist in the region's fight against the COVID-19 pandemic. It is also breaking new ground with its research, especially into bioprocessing and biopharma and the application of digital technology in the life sciences.

A series of new positions represent a major investment in the National Horizons Centre to enable it to build on these fantastic achievements and continue to help the life sciences sector, in the Tees Valley and beyond, meet the challenges of the 21st century.

Working at Teesside is a challenging, stimulating, enjoyable and rewarding experience and I wish you every success with your application.



WITH BEST WISHES

Professor Paul Croney
Vice-Chancellor and Chief Executive

NATIONAL HORIZONS CENTRE

The National Horizons Centre (NHC), is a £22.3m biosciences research, partnerships and training facility.

It sits at the heart of a cluster of bioscience and healthcare excellence on Darlington's Central Park, alongside the Centre for Process Innovation's National Biologics Manufacturing Centre and the Centre for Professional and Executive Development, in the North East of England.

Discover – Develop – Deliver

The NHC was founded in conversation with, and for the bioindustry, to discover diseases earlier, develop novel treatments, and deliver life changing medicines to those in need, quicker, safer and cheaper.

- > Discovering diseases earlier
- > Developing novel treatments
- > Delivering medicines quicker, safer and cheaper

VISION

To be the leading and most trusted partner for collaborative research and industry-relevant training for the biosciences and healthcare sector.

MISSION

- > create a pipeline of graduate talent, relevant to industry and healthcare needs
- > design and deliver industry-informed programmes to address the technical and digital skills needs of the biosciences and healthcare workforce
- > develop an internationally competitive applied research and development capability that drives innovation
- > provide industry with access to specialised world-class facilities supporting new ideas and learning.



No one should be priced out of life.

I work at the National Horizons
Centre to lower the cost of
manufacturing medicines and bring
them to you faster, safer and cheaper.

Dr Safwan Akram

Principal lecturer in enterprise and business engagement

#MyHorizon

#DrSafwanAkram



CORE OFFERINGS

Research

The NHC offers state-of-the-art analytical and digital infrastructure supporting basic and applied research in the biosciences and across disciplinary boundaries, aligned to bioindustry needs.

Partnerships

The NHC is founded on the principle of industry partnerships, working together with organisations to accelerate innovation and growth in the biosciences sector.

Training and Education

The NHC's world-class facilities and resources support continued professional development, as well as apprenticeships and a range of taught undergraduate and postgraduate programmes in biosciences.

The NHC has core strengths in:

- > **disease-specific research**, to understand the underlying biology of diseases, discovering them earlier in patients, and developing novel therapeutic treatments.
- > **biomanufacturing** to develop new approaches to and optimise biotherapeutics, delivering treatments to patients faster, safer and cheaper.
- > **digital analytics and machine learning** using bioinformatics, image analysis, modelling, virtual and artificial reality, to support the discovery, development and delivery of life changing medicines.



Breathe effortlessly.

I work at the National Horizons Centre to define underlying mechanisms of respiratory diseases and to offer novel interventions.

Dr Fatemeh Moheimani

Lecturer in biomedical science



#MyHorizon

#DrFatemehMoheimani

JOIN OUR TEAM

We have an ambitious vision to be the leading and most trusted partner for collaborative research and industry-relevant training for the biosciences and healthcare sector.

We are looking for people who are passionate about discovering diseases and delivering life changing medicines to those in need, to join our dynamic team and help us achieve our goals.



RESEARCH

Professor / Associate Professor of Advanced Therapies (Research or Enterprise)

You will develop and lead a portfolio of advanced therapies externally funded research, contributing to the ambitious research and enterprise objectives of the NHC and Teesside University. You will use your world-leading research in creating advanced cell and gene therapy tools and treatments to help the centre meet its ambitious targets across research, partnerships and training. Experience in upstream production of cell and/or gene therapies and their manufacturing or development of downstream purification tools is desirable. We are particularly keen to hear from people with strong translational research and a track record of industrial collaboration.

More information available [here](#).

Professor / Associate Professor of Proteomics (Research or Enterprise)

You will develop and lead a portfolio of proteomics externally funded research contributing to the ambitious research and enterprise objectives of the NHC and Teesside University. With a strong track record of publishing in high impact peer-reviewed journals and securing funding from a range of sources, including industrial partners, you will support the centre's rapidly developing work in disease discovery and development of novel therapeutics. You will have expertise in applying state-of-the-art mass spectrometry and analytics to address key questions within the healthcare/bioscience ecosystem. We are particularly keen to hear from people with a strong translational research background and a track record of industrial collaboration.

More information available [here](#).

Professor / Associate Professor of Translational Healthcare (Research or Enterprise)

You will develop and lead a portfolio of translational healthcare externally funded research contributing to the ambitious research and enterprise objectives of the NHC and Teesside University. With a strong track record of securing funding from a range of sources, including industrial partners, you will support the centre's rapidly developing work in disease discovery and development of novel therapeutics. You will understand the importance of big data, health economics, digital and artificial intelligence in translational healthcare research. We are particularly keen to hear from people with significant experience of working in collaboration with the NHS, diagnostic organisations and digital healthcare technology providers.

More information available [here](#).

Professor / Associate Professor of Cell Engineering (Research or Enterprise)

You will develop and lead a portfolio of cell engineering externally funded research and contribute to the ambitious research and enterprise objectives of the NHC and Teesside University. With a strong track record of securing funding from a range of sources, including industrial partners, you will support the centre's rapidly developing work in disease discovery and development of novel therapeutics. We are particularly keen to hear from people who can demonstrate their impact in the field of cellular engineering, with extensive understanding of relative quality controls and manufacturing processes.

More information available [here](#).



PARTNERSHIPS AND TRAINING

Business Innovation Manager

As part of the core NHC strategic and delivery team, you will work alongside the NHC Director, to collaborate with companies operating in the biosciences sector and engage them in innovation, knowledge exchange, partnerships, skills and training. The NHC has ambitious targets to focus 50% of its output towards industrial partnerships and you will be key to helping us achieve this. You will come from a biosciences background and have a deep understanding of the UK biosciences sector. We are particularly keen to hear from people who can demonstrate a track record in building and maintaining business relationships, experience of working in or with bio-based companies, good knowledge of innovation and R&D funding regimes and policy and a proven history of generating significant commercial income.

More information available [here](#).

Head of Training

One of the core pillars of the NHC is to design and deliver industry-informed programmes to address the technical and digital skills needs of the biosciences workforce. You will play a major role in building and developing our ambitious training offering, and to ensure that our training packages meet the needs of industry. You will lead on the development and delivery of the NHC Continued Professional Development training programme, being responsible for the training team and for the overall management and coordination of all NHC training programmes. We are particularly keen to hear from people who have a strong technical background in bioprocessing and biopharmaceuticals, who can demonstrate a track record in designing and delivering training to industry. Expertise in upstream and/or downstream bioprocessing and analytical techniques is desirable.

More information available [here](#).

Bioprocessing Training Officer (2 posts available)

One of the core pillars of the NHC is to design and deliver industry-informed programmes to address the technical and digital skills needs of the biosciences workforce. You will support the Head of Training to develop and deliver training content in this area to a wide variety of clients. We are particularly keen to hear from people who have a strong technical background in bioprocessing and biopharmaceuticals, who can demonstrate a track record in designing and delivering training to industry. Expertise in upstream and/or downstream bioprocessing and analytical techniques is desirable.

More information available [here](#).

TECHNICAL

Scientific Experimental Officer (Genomics / Molecular Biology)

Playing a major part in driving forward the research expertise and technical capabilities of the NHC, this role offers a specialism in genomics and expertise in the application and interpretation of next-generation sequencing and other omics technologies. Working with internal and external partners, you will apply omics approaches and knowledge to address key questions across areas such as healthcare, bioprocessing and biopharmaceuticals. You will design experiments with academics and industrial partners, develop and deliver training in omics technology and data interpretation and develop new applications and methodologies to progress the NHC's research.

More information available [here](#).

Scientific Experimental Officer (Bioinformatics)

Playing a major part in driving forward the research expertise and technical capabilities of the NHC, this role offers a specialism in bioinformatics and analytics. Working with internal and external partners, you will apply state-of-the-art digital technologies to address key questions across bioprocessing, biopharmaceuticals, biotechnology and healthcare. You will design experiments with academics and industrial partners, develop and deliver training in bioinformatics to internal and external partners and develop new applications and methodologies to progress the NHC's bioinformatics research.

More information available [here](#).

Scientific Experimental Officer (FACS / Confocal / Raman)

Playing a major part in driving forward the research expertise and technical capabilities of the NHC, this role offers a specialism in the areas of flow cytometry, confocal microscopy or raman confocal spectroscopy. Working with internal and external partners, you will use our state-of-the-art equipment to address key questions across our research themes with a focus on bioprocessing, biopharmaceuticals and healthcare. You will design experiments with academics and industrial partners, develop and deliver training to internal and external partners and develop new applications and methodologies to progress the NHC's research.

More information available [here](#).

Technician / Senior Technician (Cell Culture)

As a valuable member of a team delivering cutting-edge research and training to students and industrial partners, you will be key in ensuring the smooth operation of our laboratories and teaching spaces. You will provide technical support to the NHC's activities, including assistance to academic staff, students and other individuals in the use of technical equipment and preparing laboratories for teaching and training activities. We are particularly keen to hear from people who have a background of working in cell culture in the bioprocessing, biopharmaceuticals and healthcare sectors.

More information available [here](#).



We all deserve
a bright future.

I work at the National Horizons
Centre to improve cancer
diagnosis and develop kinder
treatments for children and adults.

Professor Vikki Rand

Head of research

#MyHorizon

#ProfessorVikkiRand



FACILITIES

The centre's imaginative design includes an exciting blend of teaching and collaboration spaces, together with hi-tech labs and a state-of-the-art computing suite, world-class bioanalytical, bioimaging and bioprocessing equipment, used for research and training and that can be accessed by our partners.

You can see our equipment list [here](#).

The NHC has world leading equipment across a range of bioscience applications:

- > **Bioanalytical science:** UPLC, GCMS, UPLC-TOF, UPLC-QQQ. Next-generation sequencing (MiSeq) for comprehensive microbial research genomics, Nanostring and Nanopore devices.
- > **Bioimaging:** confocal microscopy for cellular physiology and dynamics - MALDI and DESI mass spectrometry for molecular imaging and Confocal Raman microscopy.
- > **Bioprocessing:** microbial and mammalian bioreactors available at lab scale for batch and continuous cultivation.
- > **Bioinformatics:** a dedicated computer suite equipped with 20 high-performance workstations with a wide range of bioinformatics software capability.

Mass spectrometry is an essential component of the health, pharmaceutical, biotechnology and bioprocessing industries providing trace analysis, structural information and process characterisation.

Our bioanalytical lab is part of the [Waters](#) Centers of Innovation Program, which recognises innovative science in a select number of international collaborative laboratories. The lab was borne out of a long-standing collaboration between Waters and the NHC, resulting in the development of some of Waters' leading-edge equipment, peer-reviewed joint publications and over 100 conference presentations.



Aim high and achieve your goals.

I work at the National Horizons Centre to better understand mechanisms underlying neurodegenerative disease and use that to test, design, and establish new treatment.

Dr Tora Smulders-Srinivasan

Senior lecturer in biomedical science

#MyHorizon

#DrToraSmulders-Srinivasan



RESEARCH WITH IMPACT

Here at Teesside University our focus is on externally facing research that makes a real, practical difference to the lives of people and the success of businesses and economies.

Our work is focused around three Grand Challenge themes: Forging a smarter, greener industrial economy, Shaping the future of health, care and wellbeing, and Creating vibrant, cohesive and resilient societies. Our multifaceted approach provides the fresh thinking needed to help address some of the biggest national and global challenges that face society.

The number of staff engaged in research across the University continues to grow and we have introduced a range of programmes to support staff throughout their careers. We have retained the HR Excellence in Research Award which acknowledges our alignment with the principles of the European Charter of Researchers, and we are proud members of the Athena SWAN charter.

Furthermore, we have signed up to the San Francisco Declaration on Research Assessment, placing more emphasis on quality research rather than volume and ensuring factors such as career breaks or reduced hours do not negatively impact on research careers.

FIND OUT MORE:
tees.ac.uk/research



The majority of our research
was recognised as world-leading
or internationally excellent

(Research Excellence Framework 2014)*

*Find out more at tees.ac.uk/source

Success comes
from perseverance.

I work at the National Horizons
Centre researching the causes of
Parkinson's disease. This knowledge
can be taken forward into treatment
and development of therapeutics.

Maria O'Hanlon

PhD researcher

#MyHorizon

#MariaOHanlon

#ABioBlog



TOGETHER WITH BUSINESS

Teesside University is an economic powerhouse at the heart of the Tees Valley in North East England, proud to be at the forefront of developing the knowledge and skills needed to fuel the economy.

We are first and foremost an institution of learning but we also have a long history of driving economic impact through our engagement with business, underpinned by academic research.

By close collaboration with partners in the private and public sectors, the University finds ways to help deliver the UK's Industrial Strategy.

We want to create a world where everyone benefits from progress and believe knowledge powers our steps – to push the boundaries of what is possible as an ambitious and enterprising anchor institution.

FIND OUT MORE:

tees.ac.uk/business
thedigitalcity.com



OVER £270M

INVESTED IN OUR CAMPUS,
WITH A FURTHER £300M OVER
THE NEXT TEN YEARS*

WINNERS OF THE EDUCATE NORTH STUDENT EXPERIENCE AWARD 2019

University Sector for Future Facing
Learning: Empowering Digital
Learning at Teesside University*



TEESSIDE UNIVERSITY
RECEIVED A **SILVER** RATING IN
THE GOVERNMENT'S TEACHING
EXCELLENCE FRAMEWORK
(TEF) 2019*



INVESTORS
IN PEOPLE
GOLD
ACCREDITATION*

OVER 85 YEARS

of learning and teaching

RANKED IN THE
801-1000 BAND
OF GLOBAL
UNIVERSITIES IN
THE TIMES HIGHER
EDUCATION WORLD
UNIVERSITY
RANKINGS 2020

(1,396 INSTITUTIONS INCLUDED)*

TEESSIDE WAS RANKED
12TH IN THE UK OUT OF
51 UNIVERSITIES IN THE
POSTGRADUATE CATEGORY
AT THE WHATUNI STUDENT
CHOICE AWARDS 2019

(WhatUni Student Choice Awards 2019)*

LISTED IN THE TIMES
HIGHER EDUCATION
WORLD UNIVERSITY
RANKINGS 2019*



TEESSIDE UNIVERSITY
WAS RANKED JOINT
40TH IN THE STONEWALL
TOP 100 LIST OF THE MOST
LGBT-INCLUSIVE EMPLOYERS
IN BRITAIN 2020*

THE MAJORITY OF
OUR RESEARCH WAS
RECOGNISED AS
**WORLD-LEADING OR
INTERNATIONALLY
EXCELLENT**

(Research Excellence Framework 2014)*

THROUGH OUR
ON-CAMPUS BUSINESS
SUPPORT, OUR
GRADUATES HAVE
LAUNCHED OVER **545**
NEW BUSINESSES,
CREATING OVER
840 JOBS*

TEESSIDE AND THE REGION

Teesside is known for its exciting mix of industry, culture and striking scenery.

From the nearby stunning coastline to the area's vibrant towns and glorious countryside, this is a place where old and new, urban and rural, and culture and commerce converge.

Cushioned between County Durham and North Yorkshire, each corner of Teesside – or the Tees Valley – is a unique destination waiting to be discovered. Darlington, Hartlepool, Middlesbrough, Stockton-on-Tees and Redcar & Cleveland are all bursting with things to do, places to see and stories to tell.

Middlesbrough Institute of Modern Art (MIMA) is one of the UK's leading galleries for modern and contemporary art and craft, and is part of the University.

Baker Street and Bedford Street are collectively unique and home to an emerging and growing collection of truly British homegrown independent retailers and service providers at the heart of Middlesbrough's cultural renaissance.

Then there's the North York Moors National Park, with its spectacular views and historic sites, as well as the stunning beaches of Redcar and Saltburn-by-the-Sea – all within close proximity to our campus.

The Tees Valley enjoys easy access to the rest of the country with London, Edinburgh and Manchester an easy two and a half hour train journey away and Newcastle, York, Leeds and the Lake District all within an hour's drive.



National Horizons Centre
38 John Dixon Lane
Darlington
DL1 1HG

FIND OUT MORE

T: 01642 384068

E: info@nationalhorizonscentre.org.uk
nationalhorizonscentre.org.uk



CAG11854