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Driving MedTech research and innovation in Nottingham

Universities for Nottingham is a pioneering collaboration, bringing together the combined strength and civic missions of Nottingham's two world-class universities. MedTech research and innovation is a major priority of this collaboration, creating the ideal environment to drive the translation of MedTech from the lab to clinical adoption.



Cutting-edge academic expertise

With internationally recognised expertise, we have the capability to support and enhance your MedTech product development.

- Design and manufacture of medical devices
- Diagnostics, detection and monitoring
- Manufacture of drugs, tissue scaffolds and other biomaterials
- Novel treatments and patient care
- Digital health, artificial intelligence and analysis

More about our expertise can be found here:

- › [Centre for Healthcare Technologies at UoN](#)
- › [Medical Technologies and Advanced Materials at NTU](#)



State-of-the-art equipment

The new **Medical Technologies Innovation Facility** has the space, the equipment and the know-how to support your MedTech development

- Regenerative and Cell Therapy Development
- Smart Medical Textiles
- Surgical Simulation Suite
- Microbiology and Biocompatibility Services

Sir Peter Mansfield Imaging Centre hosts world class MRI and other imaging capabilities

We also offer cutting-edge manufacturing facilities; a wide range of life sciences imaging, interface and surface analysis; robotics and more



Case study – Smart endotracheal tubes

In critically ill patients under anaesthesia, endotracheal tubes play a vital role in maintaining an open airway, allowing artificial ventilation, and preventing aspiration of fluid into the lungs. Artificial ventilation often leads to serious conditions such as post-intubation stenosis, affecting a patient's ability to breathe and speak; and ventilator-associated pneumonia, which prolongs recovery and can be fatal.

Developed with NIHR and Medical Research Council funding, our iTraXS (intra tracheal multiplexed sensing) tube incorporates optical fibre sensors into the cuffs of the tube which can measure tracheal contact pressure, blood flow, humidity, temperature, oxygen saturation and biofilm thickness.

In collaboration with **P3 Medical** and anaesthetists from Nottingham University Hospitals NHS Trust, we have successfully completed proof of principle studies including our first in human series.

Clinical expertise

Our local and national healthcare partnerships means that we work closely with clinical experts who understand what is needed from MedTech products in practice.

Your device NHS ready

[CHEATA](#), embedded within Nottingham University Hospitals NHS Trust, supports MedTech developers to gather the evidence for clinical adoption and to develop devices that are regulatory compliant and truly fit for use in health and social care.

Translation experience

Our experience of [working with business](#) from multi-nationals to SMEs, our portfolio of [spinout companies](#) (eg SurePulse Medical Ltd, Locate Bio, Footfalls & Heartbeats, NuVision Biotherapies Ltd, CompanDX) and our knowledge of the whole pathway to adoption, gives us the edge in supporting your journey.

Access to patients

Our hospitals are amongst the biggest and busiest in England with dedicated resources and infrastructure to support clinical research and technological innovation. The local population is ethnically diverse, supporting representative recruitment for clinical trials, supported by research design services and nationally accredited research facilities.

Midlands MedTech Hub

Situated in the heart of England, Nottingham is a fantastic location for medical device developers within the [Midlands MedTech Hub](#).

Nottingham boasts a low cost of living, less than two hours from London by train. With [innovation space](#) and [incubator space](#), local companies benefit from a wealth of experience, support and access to funding available with [MediLink Midlands](#).

Our universities provide a ready source of highly qualified graduates and PhDs, with strong healthcare research and clinical involvement.

Why collaborate with Universities for Nottingham?

Seamless partnerships

From single points of contact to simple contractual arrangements, we understand that it's important to have easy and responsive relationships.

Ways to engage with us

There are numerous ways to work with us: contract research, hiring facilities, knowledge transfer partnerships, PhDs, secondments and much more...



MTIF Cleanrooms for Scale up and Pre-Clinical Manufacture

MTIF has recently opened its second site dedicated to the provision of GMP C cleanroom space, for rent by organisations wishing to develop or carry out manufacture of medical products in a validated and maintained facility. Through offering this space the time and investment it takes for an organisation to reach production can be massively reduced, enabling new therapies and medical technologies to reach the market earlier. One of the first companies to exploit this new resource is Locate Bio, a world leading orthobiologics company focussed on regenerative medicine. Locate Bio plan are conducting manufacture and process validation of their lead product in advance of its clinical programme.



The availability of MTIF's state of the art cleanrooms is an invaluable local resource that will enable us to achieve our product development goals. We've found the team at MTIF to be extremely professional, flexible and customer focused, and we hope that this is the beginning of a long relationship with MTIF.

John von Benecke, CEO, Locate Bio