

## UK-wide Facility to Test for Future Health Nanotechnologies

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A bespoke nationwide facility for testing innovative nanotechnologies for healthcare applications is to be established at the University of Strathclyde.

The [University of Strathclyde](#) has been awarded £853,000 by the EPSRC (Engineering and Physical Sciences Research Council) to create the Multiscale Metrology Suite (MMS) for Next-Generation Health Nanotechnologies.

The facility will provide scientists from across the [UK](#) with access to world-leading technology for the analysis of materials, supporting the discovery of diagnostics and therapies of the future. It will be a first-of-its-kind facility in the [UK](#), enabling combined physical and chemical analysis of prototype nanotechnologies.

The combined investment by Strathclyde and the EPSRC is worth more than £1.6 million.

Dr Zahra Rattray, Chancellor's Research Fellow and Lecturer in Translational Pharmaceutics with Strathclyde Institute of Pharmacy and Biomedical Sciences, is the Principal Investigator on the project. She said: "Nanotechnology for health is a rapidly growing sector, as seen with vaccines developed during the COVID-19 pandemic and the increased use of nanotechnologies in cancer diagnostics and therapies.

"We are excited about the new opportunities the MMS will create with the proposal partners - LGC, the Medicines Discovery Catapult and the Centre for Process Innovation - as well as the wider [UK](#) and international nanotechnology communities, in addressing the challenges faced in nanomedicine design."

Professor Peter Simpson, Chief Scientific Officer at Medicines Discovery Catapult, added: “At MDC, we have identified that in the [UK](#) there are technology, infrastructure, and expertise gaps that make it difficult for innovators to rapidly progress complex medicines towards validation and clinical evaluation, and we are committed to helping address this gap.

“So I am pleased to see this metrology suite being created. The facilities will enable improved analysis of physicochemical quality attributes for a diverse portfolio of new approaches to healthcare development.”

The analysis of nanotechnologies for healthcare applications is currently a complex and challenging process, requiring the use of multiple technologies, which often leads to delays in the development of new medicines or failure of products at later clinical trial stages. As a modular suite combining the latest in detection technologies in a single setup, MMS will push the existing limitations in the analysis of new nanotechnologies through enabling multiple analyses to be performed on the same sample.

The data generated from these measurements will enable researchers to improve their understanding of what properties drive the performance and safety of new nanotechnology-based medicines. It will also provide an environment in which nanotechnology researchers from academia and industry sectors can access the facility, testing new prototypes and developing new workflows.

The research is linked to Strathclyde’s HealthTech cluster, one of the University’s six clusters of research capability and innovation focus. The cluster draws on interdisciplinary expertise in health, engineering, life sciences and social sciences, with industry-facing themes in Medical Diagnostics and Wearables, Digital Health, and Advanced Rehabilitation, as well as an underpinning focus on Healthcare AI, Machine Learning, Data Science and Data Analytics.

Read the [uk-widefacilitytotestforfuturehealthnanotechnologies/" target="\\_blank" rel="noreferrer noopener">original article](#) on The University of Strathclyde.