BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Singapore announces launch of Systems Metabolomics Centre for precision medicine

March 21, 2025 | News

Centre will focus on advanced metabolomics research to revolutionise disease detection and treatment



In a strategic move for medical research and innovation, Duke NUS Medical School and the National University of Singapore Yong Loo Lin School of Medicine (NUS Medicine) have launched the Systems Metabolomics Centre (SysMeC), their first-ever joint research centre.

This groundbreaking initiative is set to drive cutting-edge metabolomics research, unlocking new ways to detect diseases earlier and tailor treatments for better patient outcomes using precision medicine.

By leveraging state-of-the-art metabolomic technologies spread over 600 sqm over two sites, SysMeC will focus on three key areas:

1. **Enhancing large-scale population studies** to uncover metabolic signatures linked to heart disease, diabetes, cancer and neurodegenerative disorders.
2. **Driving fundamental scientific discoveries** that improve our understanding of metabolism and its role in health and disease.
3. **Accelerating the development of new technologies** by fostering collaborations between leading researchers, clinicians and industry partners to create world-class analytical tools.

It will provide metabolomics expertise to large patient cohort studies that focus on profiling populations of healthy people and those living with specific illnesses, including collaborative projects such as DYNAMO (OF-LCG) and RESET as well as the national clinical translational programme CADENCE.

SysMeC is kicking off with a pioneering project that could improve the way cardiometabolic diseases such as heart disease, diabetes and kidney disorders are diagnosed and monitored in the local population in Singapore.