



PRESS RELEASE

15 NOVEMBER 2023 | FOR IMMEDIATE RELEASE

Launch of NUS Medicine Centre for Sustainable Medicine to accelerate net zero transition in global healthcare

First-of-its-kind institution in Asia and the largest in the world, the new Centre at the Yong Loo Lin School of Medicine, National University of Singapore, will pioneer a new field of practice and transform medical education in Singapore and across the world

Singapore, 15 November 2023 — The climate footprint from healthcare constitutes 5 per cent to 8 per cent of the global total, making it the fifth largest emitter on the planet.

Climate change is undermining foundations of good health in Singapore and across the world, from extremes of heat to the spread of infectious diseases. Singapore, however, is particularly vulnerable, heating up twice as fast as the rest of the world, a trend that is risking health outcomes.

The Yong Loo Lin School of Medicine, National University of Singapore (NUS Medicine) is establishing the Centre for Sustainable Medicine, to pioneer and lead the health profession's response to climate change in Singapore, Asia, and across the world. As the first-of-its-kind institution in Asia and the largest in the world, the Centre is dedicated both to decarbonising healthcare and developing climate-resilient health systems to accelerate the net zero transition in healthcare. Net zero refers to the lowering of greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere.

The Centre will bring together leading experts and clinicians from around the world to establish a new field of medicine and transform clinical practice. To fulfil its mission of establishing Singapore as a world leader in sustainable medicine, the Centre aims to achieve the following:

- Transform medical education and prepare future healthcare leaders to be at the forefront of the response to climate change. This will include embedding sustainability into the foundations of undergraduate medical school and develop a first-in-the-world "Masters of Sustainable Medicine";
- Pioneer clinically-relevant and solutions-focused research designed to support high-quality, low-carbon care; and
- Support health policymakers and hospital administrators across the world to accelerate the transition to net zero healthcare.

The Centre is led by Professor Nick Watts, Director of the Centre for Sustainable Medicine at NUS Medicine, who has been appointed as the world's first Professor of Sustainable Medicine. Prof Watts has served as the Chief Sustainability Officer of the National Health Service (NHS), where he was responsible for leveraging its 1.4 million employees and annual budget of £180 billion, to deliver the health service's commitment to be net zero by 2045. Under his leadership, in the first year alone, the NHS successfully cut its carbon emissions by an amount equivalent to what is needed to power 1.1 million homes in the first year.

"Without urgent action, climate change will overwhelm health systems across the world, including Singapore. The newly minted Centre for Sustainable Medicine at NUS Medicine will tackle this challenge, helping doctors, nurses and hospitals prepare for the spread of infectious diseases and weather extremities. At the same time, it will conduct research and implement net zero healthcare across the country, directly improving the health of our patients and reducing stretched health budgets," said Prof Watts.

Findings from a research survey commissioned by the Centre affirm that health professionals in Singapore are deeply concerned and want to see real change too, with 82 per cent of them supporting action towards a more sustainable health system. Two-thirds of them believe Singapore should participate in or be role models for the international community in sustainable healthcare.

Launch of the Centre for Sustainable Medicine at the UN Climate Change Conference (COP28)

The Centre is representing both NUS and Singapore at the 28th session of the Conference of the Parties (COP28), held at Dubai. This is the largest international climate and sustainability summit at which heads of state, senior government officials, researchers, scientists, entrepreneurs, and civil society leaders will collectively address the challenges of climate change.

For the first time, COP28 will focus on the health implications of climate change with the introduction of "Health Day" after more than three decades, and examine how the climate and health ministries can build consensus around climate action and financing, to meet the rapidly changing health and social needs of the world.

In strengthening and promoting climate-resilient and climate-responsive healthcare, the Centre for Sustainable Medicine will play a key role in demonstrating Singapore's commitment to, and leadership in, fostering environmentally sustainable healthcare.

The Centre will provide expert input to a wide variety of delegations. With the Conference's plans to facilitate global consensus-building on key actions for health system transformation, there is now more attention and interest in the question of how governments, healthcare providers, and populations across the world can better prepare for the rising tide of climate-driven health challenges. Along with other delegates from NUS and Singapore, the Centre will address these challenges, offer its perspectives, and present a way forward at COP28.

The way forward for the Centre for Sustainable Medicine

With healthcare being a substantial emitter, decarbonising the healthcare system is a critical component of Singapore's collective commitment to reduce emissions by 60 megatonnes of carbon dioxide-equivalent (MtCO₂e) by 2030, and reach net zero by 2050, as part of the government's Long-Term Low-Emissions Development Strategy (LEDS). To support this goal, and enable Singapore to become a world leader in sustainable medicine, the Centre for Sustainable Medicine has three early initiatives in place:

1. Transforming medical education through the new Clinical Fellowship in Sustainable Medicine

Embedding the principles of sustainability and low-carbon healthcare into the undergraduate medical curriculum, **the Centre will launch a new Clinical Fellowship in Sustainable Medicine.** The Fellowship will bring together senior clinicians and health professionals from across the region to Singapore, to provide advanced training in sustainable healthcare and equip them with the skills to deliver high-quality care in a rapidly evolving climate. Delivered through a mix of online and in-residence teaching, the Fellowship programme will partner with sister initiatives in the UK and the US to create a community of practice.

The Centre will also work closely with NUS Medicine to undertake a comprehensive review to refresh the medical syllabus for undergraduate medical students. Beyond preparing the students for the demands of medical practice, the new curriculum will inculcate in students a holistic outlook that recognises the intersections between human and environmental health.

This emphasis on sustainability marks a shift in evolving paradigms of care, adding a deeper appreciation of the ecological impact on the bio-psycho-social model of health, and challenging the students to think critically and creatively about the increasingly complex health challenges of our time.

2. Charting a path for Singapore's Health System

The Centre is convening a wide range of experts from the UK, US, Australia and Singapore to develop **the first comprehensive assessment of the carbon impact of healthcare in Singapore**, in areas such as the baseline carbon footprint, pathway for decarbonisation in healthcare, and more.

The results of this study will provide a baseline carbon footprint for the country and allow experts to develop a robust net zero healthcare strategy to support health administrators and policymakers.

3. A landmark Collaboration in Sustainable Healthcare

Singapore will host the first in-person meeting of the newly formed Lancet Commission on Sustainable Healthcare in March 2024. This landmark academic commission, convened by the prestigious medical journal The Lancet, brings together the world's leading experts on health, healthcare, and climate change, including academics from NUS, to better understand the links between health, healthcare, and climate change. Representing Singapore and the region, the Centre for Sustainable Medicine will be providing expertise and evidence to develop locally relevant strategies to chart the path forward for sustainable healthcare systems.

"Climate change is closely linked to health outcomes, and an estimated 88 per cent of the disease burden caused by climate change affects our young and vulnerable children. Yet, ironically, our healthcare practices have a disproportionately large carbon footprint. Hence, health professionals care about this as we have a duty to protect the wellbeing of our patients," said Dr Amanda Zain, Deputy Director of the Centre for Sustainable Medicine, and Assistant Dean (Sustainability) at NUS Medicine.

"The Centre will support evidence-based, collaborative and pragmatic climate action that optimizes health for today and the future," added Dr Zain.

For media enquiries, please contact:

Sally TOH
Head of Communications
NUS Yong Loo Lin School of Medicine
DID: +65 81004781
Email: sally.toh@nus.edu.sg

Natalie TAN
Senior Executive, Communications
NUS Yong Loo Lin School of Medicine
DID: +65 90111459
Email: nat_tan1@nus.edu.sg

About National University of Singapore (NUS)

The National University of Singapore (NUS) is Singapore's flagship university, which offers a global approach to education, research and entrepreneurship, with a focus on Asian perspectives and expertise. We have 16 colleges, faculties and schools across three campuses in Singapore, with more than 40,000 students from 100 countries enriching our vibrant and diverse campus community. We have also established more than 20 NUS Overseas Colleges entrepreneurial hubs around the world.

Our multidisciplinary and real-world approach to education, research and entrepreneurship enables us to work closely with industry, governments and academia to address crucial and complex issues relevant to Asia and the world. Researchers in our faculties, research centres of excellence, corporate labs and more than 30 university-level research institutes focus on themes that include energy; environmental and urban sustainability; treatment and prevention of diseases; active ageing; advanced materials; risk management and resilience of financial systems; Asian studies; and Smart Nation capabilities such as artificial intelligence, data science, operations research and cybersecurity.

For more information on NUS, please visit nus.edu.sg.

About the NUS Yong Loo Lin School of Medicine (NUS Medicine)

The NUS Yong Loo Lin School of Medicine is Singapore's first and largest medical school. Our enduring mission centres on nurturing highly competent, values-driven and inspired healthcare professionals to transform the practice of medicine and improve health around the world.

Through a dynamic and future-oriented five-year curriculum that is inter-disciplinary and inter-professional in nature, our students undergo a holistic learning experience that exposes them to multiple facets of healthcare and prepares them to become visionary leaders and compassionate doctors and nurses of tomorrow. Since the School's founding in 1905, more than 12,000 graduates have passed through our doors.

In our pursuit of health for all, our strategic research programmes focus on innovative, cutting-edge biomedical research with collaborators around the world to deliver high impact solutions to benefit human lives.

The School is the oldest institution of higher learning in the National University of Singapore and a founding institutional member of the National University Health System. It is one of the leading medical schools in Asia and ranks among the best in the world (Times Higher Education World University Rankings 2024 by subject and the Quacquarelli Symonds (QS) World University Rankings by subject 2023).

For more information about NUS Medicine, please visit <https://medicine.nus.edu.sg/>

About the Centre for Sustainable Medicine

At the forefront of the net zero transition in healthcare, the Centre for Sustainable Medicine is delivering real-world change by training future healthcare leaders and equipping clinicians, industry, and health policymakers with the tools and evidence needed to respond at pace to climate change.

As the first research centre in Asia and the largest in the world to lead and support healthcare decarbonisation and climate resilience, the Centre is the vanguard of an emerging multidisciplinary field of practice dedicated to improving the health of our patients in the face of climate change, and driving the transition to net zero healthcare.