



Healthy
Longevity
Clinic



NUHS Centre for
Healthy Longevity



Media Release

NUHS opens the world's first healthy longevity clinic in a public hospital, located at Alexandra Hospital

NUHS and AH launch the world's first public hospital's Healthy Longevity Clinic, with the aim of increasing healthspan of Singaporeans by 3 years in 10 years' time. The Healthy Longevity Clinic (健康长寿诊所) translates healthy longevity research into evidence-based medicine and makes it available to a wider group of people. It is co-located with the NUHS Centre for Healthy Longevity research unit at Alexandra Hospital, where new longevity treatments and technologies are rapidly tested at the research centre. There will be opportunities for people at the clinic to take part in ongoing clinical trials of supplements and repurposed drugs. In fact, the first human clinical trials involving lifestyle interventions and nutritional supplements began last year. The first human clinical trial for repurposed drugs will start next. The clinic will also be a valuable resource for the community, providing education and outreach on topics related to healthy longevity to promote healthy ageing and prevent and reduce the burden of age-related diseases.

Singapore, 2 Sep 2023 -- A year after the official launch of the NUHS research-based Centre for Healthy Longevity (CHL), the National University Health System (NUHS), NUS and Alexandra Hospital (AH) today, on 31 August 2023, announced the opening of "Healthy Longevity Clinic" for the general public, **the first of its kind in the world from public healthcare**. AH's doctors, nurses, allied health professionals, exercise physiologists, dietitians and health coaches now accept appointments to provide diagnosis and intervention of individuals from between 35 years old to 70 years old with one stable chronic disease. The aim is to optimise health by targeting ageing processes throughout the life course, as early as possible. **The clinic also aims to establish the cost-effectiveness of the service in optimising health and increasing healthspan. The ultimate goal is to persuade policymakers in Singapore to consider making evidence-based longevity medicine and care more accessible to more people.**

Advantages of being in a public hospital:

2 Its co-location in the public healthcare system is timely and beneficial as the nation shifts the healthcare paradigm towards preventive healthcare for the broader population, where a greater majority are healthy and disease-free. It is co-located with

the NUHS CHL research centre led by Professor Andrea Maier¹, at the same hospital, where new treatments and technologies for longevity are rapidly tested. There will be opportunities for people in the clinic to take part in ongoing clinical trials of supplements and repurposed drugs. The first human clinical trials involving lifestyle interventions and nutritional supplements began last year. The first human clinical trial for repurposed drugs will start next. The research centre also provides the new clinic with guidance and recommendations on the structure of the service, suitability of diagnostics and interventions and education and upskilling of health professionals to practise in the service. Located in the heart of Queenstown where the Health District is, the clinic will also be a valuable resource for the community, providing education and outreach on topics related to healthy longevity to promote healthy ageing and prevent and reduce the burden of age-related diseases.

3 The clinic helmed by Director and Clinical Assistant Professor Laureen Wang, a consultant cardiologist, will use the hospital's existing infrastructure and resources, such as laboratory, imaging and medical specialists. AH's care model is already one of integrated, seamless, patient-centred care, and so the longevity clinic which falls under the auspices of AH's Well programme (preventive health screening, women's health and sports medicine), will therefore work easily with other departments within the hospital.

Purpose of the Clinic:

4 The new Healthy Longevity Clinic aims to delay biological ageing, thereby optimising functionality and resilience and increasing healthspan through evidence-based diagnosis and intervention. Using biomarkers of ageing that are specific to the Singapore population, the clinic will leverage breakthroughs from the research centre and incorporate advances in geroscience and healthy longevity medicine towards precision medicine.

What to expect at the clinic:

5 The Healthy Longevity Clinic offers a comprehensive approach to health and longevity, starting with a thorough baseline assessment using a range of tests from blood biomarkers for cardiovascular risk factors, to measuring exercise capacity, to advanced techniques such as epigenetics and artificial intelligence to measure biological age.

Some of the assessment tools used in the clinic, include

- Clinical biomarkers such as arterial stiffness, cardiac age, body composition analysis, cognition, physical and functional performance

¹ Prof Maier is an internal medicine specialist, renowned for translational research in ageing and age-related diseases diagnostics and pharmacological and non-pharmacological interventions in ageing humans. She is also the Founding President of the Healthy Longevity Medicine Society.

- Biological biomarkers such as blood age, epigenetic age and microbiome analysis
- Digital biomarkers to track physical activity, sedentary behaviour, sleep and physiological parameters

This assessment will identify the individual's biological age and risk factors for chronic disease and functional decline.

6 Next, following a comprehensive baseline assessment, a multidisciplinary team including doctors, nurses, allied health professionals and health coaches will review each individual's health and develop a personalised health plan tailored to their needs. It will discuss each participant's health status and provide a personalised health plan. Individuals will be followed up through regular health coaching sessions. The plan will include diet, exercise and sleep, as well as medical interventions, such as medication and supplements, if necessary. The clinic provides regular health coaching sessions, telemonitoring and access to digital health monitoring tools to ensure ongoing support and consistent tracking of progress. This emphasis on continuous care and monitoring sets the clinic apart from traditional healthcare models. The individual will have repeat assessments between 6 and 12 months and up to 24 months, if need be, to assess their progress.

Clinical indicators and targets:

7 The clinic aims to achieve specific clinical indicators and targets to demonstrate the effectiveness of the interventions. Targets for key indicators are as follows:

- HbA1c (average blood glucose levels): Aim for a reduction of 0.5%.
- LDL (low-density lipoprotein) cholesterol (an indicator of heart disease and stroke): Aim for a reduction of 30-40 mg/dL
- HS-CRP (indicates the risk of heart disease and stroke in people who are not predisposed): Aim for a 33% reduction
- Vo2 max/peak (maximum amount of oxygen an individual can consume during peak exercise): Aim for an increase of 3-5 mL/kg/min

These clinical indicators are tangible measures of the participant's progress in managing their health and slowing the ageing process. Achieving these goals will mean improved metabolic health, inflammation and cardiovascular fitness.

As the population ages, the prevalence of chronic diseases such as heart disease, stroke, cancer and dementia, is increasing. These diseases place a heavy burden on healthcare systems and individuals. Longevity medicine has the potential to delay or prevent the onset of these diseases, reduce the burden of chronic diseases, thereby reducing the economic and social costs of ageing.

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