SPEECH BY MR HENG SWEE KEAT,
CHAIRMAN OF THE NATIONAL RESEARCH FOUNDATION
AT THE NUHS SCIENTIFIC AND INNOVATION SUMMIT, 2 APRIL 2026

Mr Tan Chong Meng, Chairman, Board of Directors, National University Health System,

Distinguished guests,

Ladies and gentlemen,

Good morning.

Advancing Healthcare Through Research Excellence

It is a pleasure to join you at the NUHS Scientific and Innovation Summit, and to see such a strong gathering of clinicians, scientists, educators, innovators and partners.

2 The biomedical sciences are central to Singapore's development as a global biomedical and healthcare innovation hub. Beyond their economic contribution, they have enabled the translation of discovery into clinical practice to strengthen our healthcare system, improve patient outcomes, and support a robust research and clinical workforce. This ability to connect science with care is increasingly critical as healthcare shifts towards more predictive, precise and personalised models.

3 With the latest Research, Innovation and Enterprise 2030 - or RIE 2030 plan in short - and our S$37 billion investment over the next five years, we are investing not just in research, but in solutions to pressing national challenges. A major new initiative in RIE2030 is the launch of RIE Flagships and RIE Grand Challenges. Beyond the traditional way of funding bottom-up research, we are piloting a new approach of defining Grand Challenges. The first Grand Challenge is on Maximising Healthy and Successful Longevity. Like many developed societies, Singapore is confronting the realities of an ageing population and rising healthcare costs. This is not merely a demographic shift but a confluence of challenges and opportunities. The challenge is to enable healthy ageing while managing cost pressures. The opportunity lies in Singapore's ability to lead in developing solutions not only for age-related conditions, but more importantly for healthy longevity. The Grand Challenge aims to strengthen our ability to slow the onset and progression of age-related decline, by developing and managing a portfolio of research to close critical scientific knowledge gaps and translate discoveries into novel evidence-based interventions. A central focus will be on maintaining Brain Health and Physical Function as people age.

4 While much of healthcare today still focuses on treating illness – after it occurs and often at scale and with limited personalisation – the move towards genomic-informed, precision care, underpinned by data-driven population insights, is accelerating and marks an important step towards care that is tailored.

5 In Singapore, genomics has become a national priority with concerted efforts to embed its use into routine clinical practice. Over time, these capabilities will also support our

broader move towards prevention and population health, including the objectives of Healthier SG.

6 Last June, the National Familial Hypercholesterolemia (FH) Genetic Testing Programme was launched. Implemented through three Genomic Assessment Centres across the public healthcare clusters, it lays the groundwork for expanding genetic testing to other conditions over time.

7 In November, Precision Health Research, Singapore (PRECISE) began Phase III of the National Precision Medicine programme, working with the public healthcare clusters, including NUHS, to study how genomics can be applied at scale in real-world clinical settings. NUHS plays an important role here — not only as a participant, but as a national testbed for implementation.

8 The theme of today's summit — *Predictive, Precise and Personalised – Tomorrow's Health Today* — aptly captures the direction that healthcare systems around the world must take. From reacting to illness to predicting and preventing risk; from standardised pathways to care tailored to the individual; and from episodic treatment to lifelong health and wellbeing.

9 In tandem with this national momentum, you have bridged what many consider a difficult gap in translating genomic discovery into everyday clinical practice. Advances in predictive markers and early detection are shifting care from reactive treatment to anticipatory medicine. Today, thousands of patients benefit from pharmacogenetic testing as part of routine care, enabling doctors to prescribe medications that are safer and more effective for each individual. This is no longer experimental but a standard practice, reducing adverse effects and improving outcomes.

10 Efforts such as the National University Centre for Genomic Medicine (NUGEM) will further integrate genomics into clinical workflows, bringing together clinicians, pharmacists, genomics laboratories and researchers. The launch of NUGEM aligns with our Grand Challenge on Maximising Healthy and Successful Longevity, as genomic insights become increasingly vital for understanding and addressing age-related health conditions. Across NUHS, genomic testing already supports care in primary care, prenatal services, intensive care units, oncology, and rare disease diagnosis.

11 Building on this foundation, the NUHS Pharmacogenomics (PGx) Pilot Study under the National Precision Medicine strategy marks another milestone. By examining genetic factors that influence responses to 30 commonly prescribed drugs, and embedding PGx into everyday prescribing, these initiatives strengthen medication appropriateness and safety.

12 Importantly, these advances reshape how our healthcare professionals practise. For pharmacists, this signals a move beyond traditional dispensing roles to deeper clinical partnership in care. As pharmacogenomics becomes embedded in routine prescribing, pharmacists will play an increasingly important role in interpreting genomic information, supporting medication optimisation, and strengthening patient safety as part of multidisciplinary care teams.

13 With AI increasingly embedded across healthcare, it is reshaping how systems anticipate risk, personalise interventions and manage population health. Within this broader shift, data-driven capabilities are being applied to support preventive, community-based and patient-centred models of care.

14 At NUH, CaptureProof has been piloted to identify fall risks earlier; while ENTenna supports more personalised care for allergic rhinitis and asthma. The virtual pharmacist Medbot improves access to medication information while easing workload pressures. At the population level, the CHAMP programme uses advanced analytics to reduce avoidable hospital admissions through better chronic disease management.

15 As Singapore advances our national priorities from RIE 2030 and precision medicine to Healthier SG, healthy longevity and preventive care, it is important that our public healthcare system continues to evolve in step, translating strategy into real-world impact.

16 I am encouraged to see our public healthcare institutions moving in this direction, building capabilities that enable care to be more predictive, precise and personalised, while remaining grounded in trust, governance and patient need. NUHS' work reflects how an Academic Health System can contribute meaningfully to this national effort — by translating science into practice, strengthening population health, and preparing our workforce and institutions for the future.

17 As NUHS continues to move forward, it will play an important role in shaping how Singapore delivers care that is sustainable, equitable and future-ready. I wish all of you a productive Summit and look forward to the ideas and collaborations that will emerge throughout the day.

Thank you.