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Dr Ng: Innovative Heat Mitigation Strategies to Ensure Safe and Effective Training and Operations

1. Minister for Defence Dr Ng Eng Hen officiated the launch of the Heat Resilience and Performance Centre (HRPC) today at the Yong Loo Lin School of Medicine, National University of Singapore (NUS Medicine). HRPC is a tripartite collaboration between the Singapore Armed Forces (SAF), NUS, and DSO National Laboratories (DSO) to leverage best-in-class local and global expertise, including thermal physiologists and climate researchers, to address the long-term challenges of maintaining human performance amidst rising temperatures in the region and the world.
2. Dr Ng also toured an exhibition where he was briefed on HRPC's research strategies, shown research ideas that HRPC is exploring to bolster soldiers' heat resilience and performance, and observed a demonstration of data collection and analysis using wireless body sensor networks.
3. Speaking at the opening ceremony, Dr Ng highlighted that establishing HRPC is part of the SAF's effort to mitigate the impact of heat stress on soldiers and enable them to continue to train and operate effectively and safely amidst rising ambient heat. He said, "This is exactly what we have been doing for the past decade, our MINDEF/SAF/DSO doctors, scientists and engineers have been working with other national experts to deal decisively with and prevent heat injuries." Dr Ng highlighted how the tripartite partnership aims to further strengthen linkages between operations, technology and research institutions, tap into local and global expertise, and leverage key technology enablers like deep data science and artificial intelligence to develop innovative heat mitigation strategies. He said, "The pool of local experts in the field of heat injury prevention is limited. The HRPC will tap into the best-in-class researchers from both local and overseas ... this work of HRPC will be increasingly important for the health of not only our soldiers but the general public as our ambient temperature rises."
4. HRPC is a dedicated, one-stop research entity that brings together subject matter experts from the local defence ecosystem and NUS, to drive and conduct heat resilience and performance research to mitigate the challenges posed to training and operations due to global warming. HRPC will contribute to and leverage national efforts in relevant areas of research, and provide dedicated expertise support for MINDEF/SAF's long-term heat

resilience strategies. Associate Professor Jason Lee, Director of HRPC also added, “In addition to heat injuries and performance degradation, excessive heat stress can also compromise decision-making, leading to accidents. Not known to many, heat can be an enabler for physiological adaptations if we know how to use it correctly. HRPC seeks to add value to the expanding narrative of heat health and performance research to provide forward-looking solutions that proactively augments heat resilience in our people amidst rising global temperatures.”

5. Dr Ng was accompanied by Chief of Army, Dean NUS Medicine, CEO DSO and other senior members from the SAF, NUS and DSO.

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