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Singapore, Korea researchers harness AI to tackle male infertility

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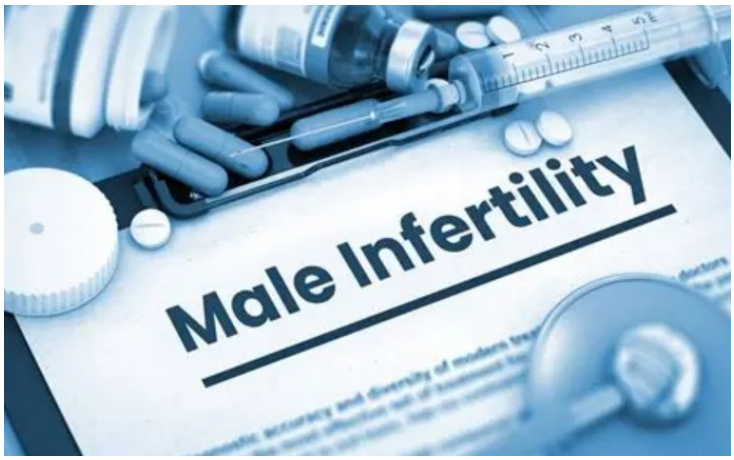
To create novel diagnostic and decision-support tools for male infertility



Researchers from the Yong Loo Lin School of Medicine at the National University of Singapore (NUS Medicine) and CHA University in Korea have announced two major advances to extend reproductive longevity at the inaugural NUS-CHA Reproductive Medicine Symposium.

Asia is facing rapid demographic transitions with declining fertility rates across the region. Male infertility rates in East and South Asia are among the world's highest, contributing to over half of the global burden. With more couples deciding to have children later in life, ageing related reproductive health challenges are increasingly becoming a concern despite advances in assisted reproductive technologies, while diagnostic and therapeutic gaps persist for both sexes.

Adjunct Assistant Professor Huang Zhongwei from the NUS Bia-Echo Asia Centre for Reproductive Longevity and Equality (ACRLE), based at NUS Medicine, and Associate Professor Lee Jae Ho from CHA University aim to combine artificial intelligence (AI) with comprehensive clinical datasets to create novel diagnostic and decision-support tools for male infertility.

In parallel, researchers from NUS Medicine and CHA University, led by Adj Asst Prof Huang and Assoc Prof Lee respectively, have identified a way to reverse age-related embryo decline in preclinical models. Ageing has long been one of the biggest barriers to fertility and age related decline in egg and embryo quality is a major hurdle in fertility, increasingly so as women decide to have children later in life.