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Hong Kong injects HK$31.5 M to develop AI-based urology care

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To conduct rapid, accurate point-of-care assessments of haematuria

Dr Jeremy Teoh Yuen-chun, Assistant Dean (External Affairs) and Associate Professor from the Division of Urology in the Department of Surgery at The Chinese University of Hong Kong (CUHK)'s Faculty of Medicine (CU Medicine), has been awarded HK$31.5 million in funding in the recently announced Strategic Topics Grants (STG) 2025/26 from the Research Grants Council (RGC) of the University Grants Committee (UGC).

The grant will fund a five-year multi-disciplinary international collaborative research project "Embracing Artificial Intelligence-Assisted Upper and Lower Urinary Tract Assessment in Primary Care and Nurse Clinic Settings".

The project aims to develop an artificial intelligence (AI) model to enable healthcare professionals to conduct rapid, accurate point-of-care assessments of haematuria in simple clinic settings, improving the diagnostic pathway and reducing the workload of specialist urology outpatient clinics and public hospitals.

Patients with haematuria typically require an ultrasound scan for the upper urinary tract and flexible cystoscopy for the lower urinary tract. Given the increasing demand for the management of haematuria patients, coupled with manpower shortages and prolonged waiting times for diagnosis, the project aims to develop an AI model with excellent diagnostic performance to enable ultrasound assessments of the upper urinary tract in primary care and nurse clinic settings.

Additionally, a novel urinary catheter with a built-in camera, supplemented by an AI model for real-time cystoscopic assessment, will facilitate visualisation of the lower urinary tract in a simple clinic setting. A pilot study will implement these innovative technologies in primary care and nurse clinics.