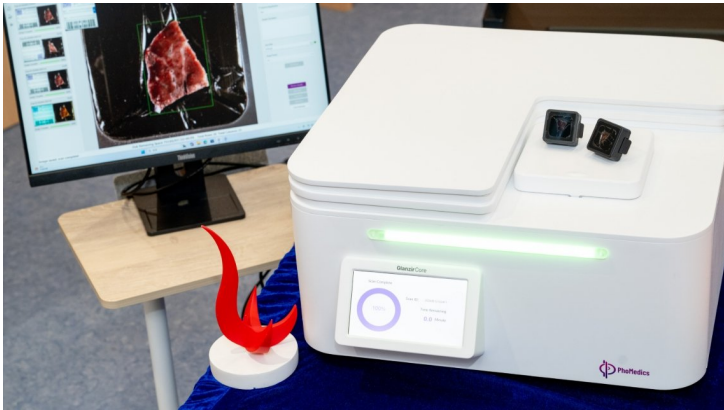


Hong Kong develops world's first AI slide-free pathology imaging system

June 15, 2026 | News

Generates histological images in just three minutes to support rapid intraoperative diagnosis



A research team from The Hong Kong University of Science and Technology (HKUST), together with an HKUST-incubated medtech startup, PhoMedics Limited, has developed Glanzir[®], the world's first artificial intelligence (AI)-enabled, slide-free pathology imaging system.

The system enables direct imaging of fresh tissue without the need for conventional procedures such as freezing, sectioning, and staining, producing histological images in approximately three minutes in an operating room setting for intraoperative assessment.

Compared with using formalin-fixed and paraffin-embedded (FFPE) tissue, which is widely regarded as the gold standard in pathology, Glanzir[®] has demonstrated approximately 85% or higher diagnostic concordance.

Upon completion of large-scale clinical trials, the team expects this concordance to improve further to around 95%. The technology has the potential to shorten intraoperative diagnostic time while preserving intact tissue for downstream analyses.

The team plans to collaborate with public and private hospitals to advance clinical adoption, with the goal of improving overall diagnostic workflow efficiency.

To date, more than 2,000 lung and breast cancer patient samples have been collected for system training and validation. In the coming three months, the team will conduct large-scale clinical trials to further advance the system towards clinical deployment.