

Korea puts focus on AI-powered analytic tool for lung cancer immunotherapy

18 April 2022 | News

Lung cancer is one of the most common cancers in the world, accounting for 1.8 million deaths every year



Professor Tony MOK Shu Kam from The Chinese University of Hong Kong's (CUHK) Faculty of Medicine (CU Medicine) has collaborated with South Korea's Seoul National University College of Medicine, Sungkyunkwan University School of Medicine, Ajou University School of Medicine and artificial intelligent (AI) startup Lunit to develop an AI-powered analytic tool to predict the effectiveness of a complementary biomarker for immune checkpoint inhibition in non-small-cell lung cancer (NSCLC).

The tool conducts a spatial analysis of the distribution of tumour infiltrating lymphocytes biomarkers in whole slide images which can predict treatment outcomes with immune checkpoint inhibitors, the current first-line therapy for advanced NSCLC.

Study results showed that the AI-powered analysis of tumour infiltrating lymphocytes correlates with tumour response and progression-free survival, meaning it may help optimise treatment selection in clinical practice.

The AI-powered spatial tumour infiltrating lymphocytes analyser developed by the collaborative research team is capable of segmentation and quantification of multiple histologic components from whole-slide images, including cancer epithelium, cancer stroma and tumour infiltrating lymphocytes.