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ASIA EDITION

Gene Solutions introduces AI-powered blood test for lung cancer detection in Asia

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SPOT-MAS is a blood-based test developed to detect cancer by analysing multiple features of circulating tumor DNA



Vietnam headquartered Gene Solutions has introduced SPOT-MAS Lung, a next-generation blood-based test powered by artificial intelligence (AI) and multi-omics analysis.

Designed with lung-specific features, SPOT-MAS Lung may offer a promising approach for earlier detection in Asia, especially among asymptomatic individuals who are often missed by traditional screening, or patients with symptoms but inconclusive imaging results.

Asia bears the highest disease burden of lung cancer, accounting for 62% of global lung cancer deaths. Alarmingly, nearly 50% of patients in the region are diagnosed at the metastatic stage, when symptoms appear, and curative treatment is often no longer possible. When detected early, however, the prognosis improves dramatically, with 5-year survival rates increasing more than fourfold. Therefore, early screening plays a critical role in improving patient outcomes.

SPOT-MAS is a blood-based test developed by Gene Solutions to detect cancer by analysing multiple features of circulating tumour DNA (ctDNA) shed by tumour cells. It was previously validated as a multi-cancer early detection (MCED) assay through a longitudinal study of 9,024 healthy individuals. While the ability to screen for multiple cancers, including lung cancer, in a single blood draw is a promising milestone, a major challenge remains making such advanced testing affordable at scale.

To address this challenge, SPOT-MAS Lung test integrates a multi-omics tumour ATLAS with AI models trained on Asian population data to reduce the cost while maintaining high performance with 90% sensitivity and 92% specificity.