GENE SOLUTIONS

SPOT-MAS

# New Hope To Outsmart Lung Cancer

## AI & Genomics Advances

That Make Lung Cancer Screening Convenient and Effective With a Single Blood Draw




Introducing

## SPOT-MAS Lung

A smart blood-based test for routine lung cancer screening by applying AI to check DNA from lung cells.

**90%** **Sensitivity(1)**

**92%** **Specificity(1)**

(1) Nguyen, Van Thien Chi et al. Cost-Effective Shallow Genome-Wide Sequencing for Profiling Plasma cfDNA Signatures to Enhance Lung Cancer Detection (January 11, 2025). dx.doi.org/10.2139/ssrn.5094108

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## What is SPOT-MAS Lung test?

SPOT-MAS Lung is a cancer screening blood test that integrates multiple AI techniques to analyze circulating tumor DNA (ctDNA) deprived from lung cells. This methodology offers a precise, non-invasive, and affordable test specifically designed for lung cancer screening[(1)].

(1) Nguyen, Van Thien Chi et al. Cost-Effective Shallow Genome-Wide Sequencing for Profiling Plasma cfDNA Signatures to Enhance Lung Cancer Detection (January 11, 2025). dx.doi.org/10.2139/ssrn.5094108




90% Sensitivity

92% Specificity

## Who is SPOT-MAS Lung for?

This screening test is intended for adults aged 50 years and older, particularly those at elevated risk for cancer.[(2),(3),(4),(5)]

- Smoking history ≥20 pack-years or quit smoking <15 years ago
- Exposure to secondhand smoke, radon, air pollution, or occupational/environmental
- First-degree relatives with lung cancer
- Diagnosed with lung disease: COPD, pulmonary fibrosis
- Exposure to carcinogens: arsenic, asbestos, beryllium, cadmium, chromium, coal smoke, diesel exhaust, nickel, silica, soot, and uranium
- Suspected symptoms (Persistent cough ≥ 3 weeks...)
- Lung lesions of unclear nature OR classified as benign/possibly benign



(2) U.S. Preventive Services Task Force Recommendation for Lung Cancer Screening. (3) The Japan Lung Cancer Society: Lung Cancer Screening Guidelines (4) Infante, M. V., & Cardillo, G. (2020). European Respiratory Journal (5) Kerpel-Fronius et al. (2021). Journal of Thoracic Oncology

## SPOT-MAS Lung In Real-World Practices

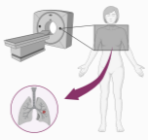




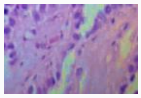

**Low-dose Chest CT scan**
Left lung: old nodule 5x7mm → LRs3
Follow-up every 6 months from 2024



**Cancer Screening Blood Test**
Blood draw for ctDNA analysis by SPOT-MAS Lung test
→ ctDNA signal from lung cells



**Contrast-enhanced chest CT scan**
Left lung: 7mm sub-solid nodule, containing a 5mm solid component (newly appeared) → LRs 4B



**Tissue Biopsy**
Results: Adenocarcinoma

True positive ctDNA signal with lung cancer, stage IIA

| SPOT-MAS portfolio | Scope | AI Technology |
|---|---|---|
| SPOT-MAS 10(*) | Multi-omics features of 10 cancer types: Breast, Lung, Liver-Biliary tract, Colorectum, Stomach, Ovary, Pancreas, Esophagus, Endometrium, Head & Neck | Multi AI machine learning and deep learning models |
| SPOT-MAS Lung | Multiple lung-specific features | Cell-free Multiomic ATLAS |
| SPOT-MAS CRC | Multiple colorectum-specific features | |

(*) First multi-cancer early detection test to complete clinical validation in Asia on

9,024 participants

**Speak to your Healthcare Professional today about SPOT-MAS!**

## Learn more about Gene Solutions

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