



2026 World Conference on Lung Cancer

SEPTEMBER 12 – 15, 2026 | SEOUL, REPUBLIC OF KOREA

Comprehensive characterisation of the blood proteome of lung cancer before diagnosis

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Disclosure

Mandatory for Oral/Mini-Oral Presentation

- No conflicts

Disclosure

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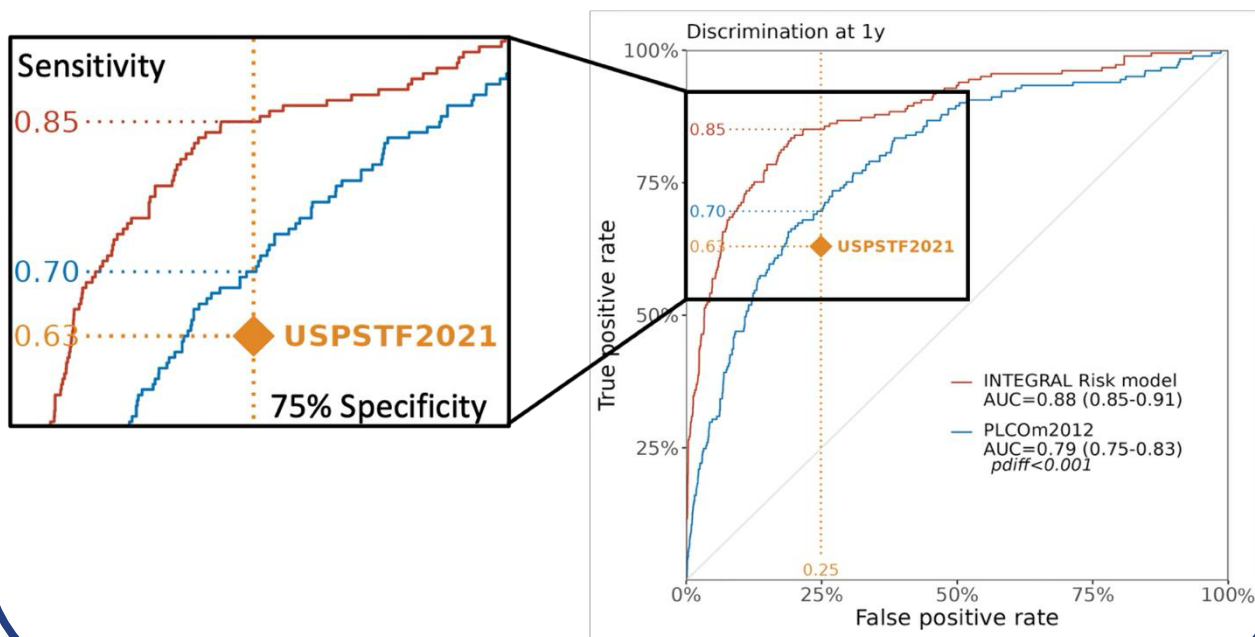
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INTEGRAL Risk model with proteins identified from Discovery

INTEGRAL risk model



JAMA | **Original Investigation**

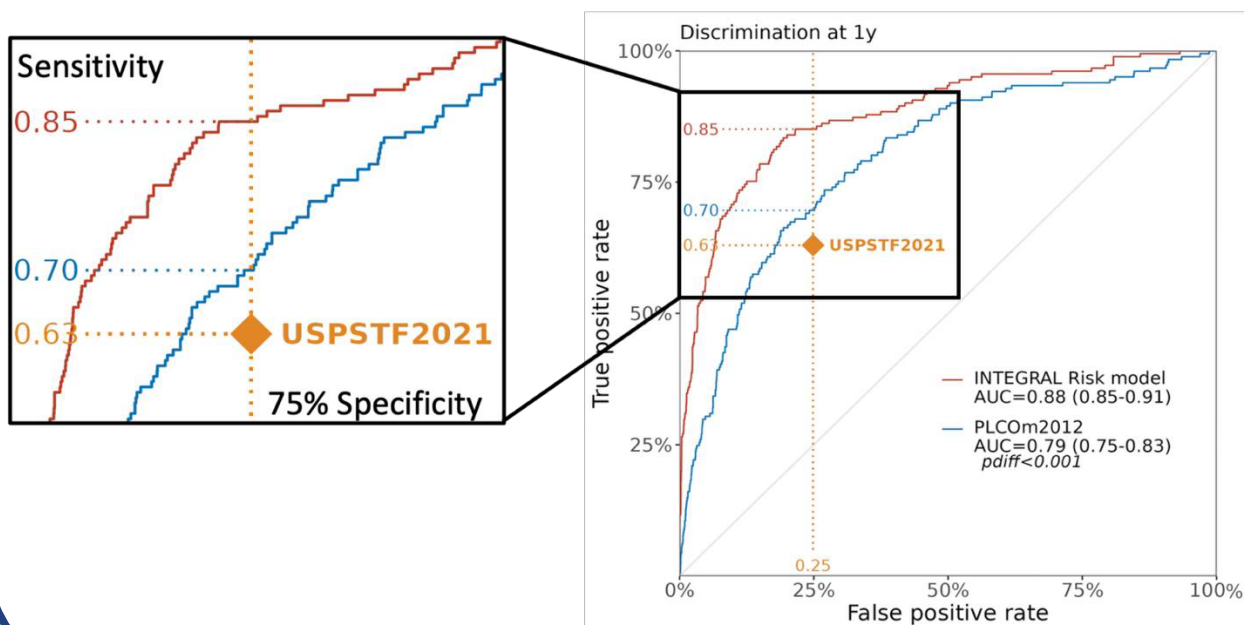
Biomarker-Based Eligibility for Lung Cancer Screening
Validation of the Protein-Based INTEGRAL-Risk Model

Zahed et al. for the
Lung Cancer Cohort Consortium (LC3)
JAMA. 2026



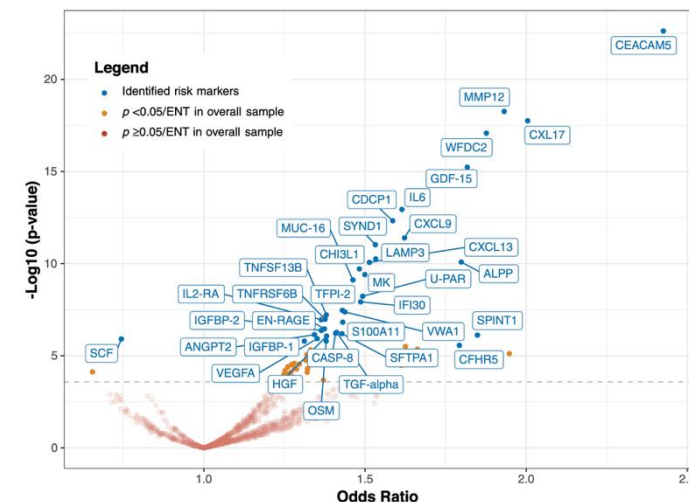
INTEGRAL Risk model with proteins identified from Discovery

INTEGRAL risk model



Zahed, Feng, et al for the LC3, JAMA 2026

Discovery



- Pre-diagnostic blood lead-time <3 years.
- Assessed 1,200 circulating proteins.

Lung Cancer Cohort Consortium, *Nature Comm* 2023

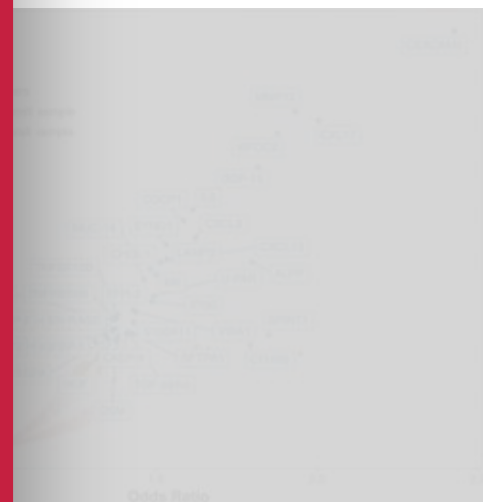
INTEGRAL Risk model with proteins identified from Discovery

INTEGRAL



**Identify a broader
range of proteins
associated with lung
cancer risk for long-
term prediction**

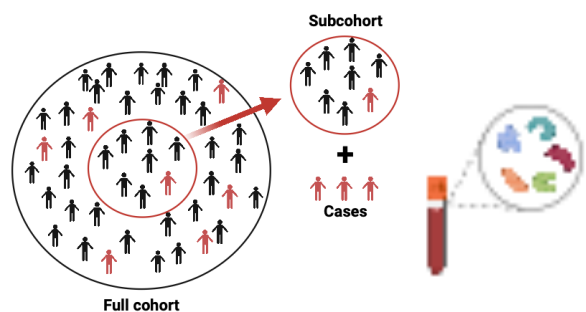
Discovery



Diagnostic blood lead-time <3 years.
200 circulating proteins.

Methods

Discovery



EPIC Case-Cohort

- 545 Cases
- 4,115 subcohort

Somalogic assay

SomScan 7K

- 7,596 aptamers.
- Normalization, log-transform, scale.



Protein-Lung Cancer Risk associations

Replication



ARIC Cohort

- Lung cancer cases : 422
- Non-cases : 9,055
- SomScan 5K

EPIC : European Prospective Investigation into Cancer and Nutrition.

ARIC : Atherosclerosis Risk in Communities.

Circulating proteins associated with lung cancer risk in EPIC

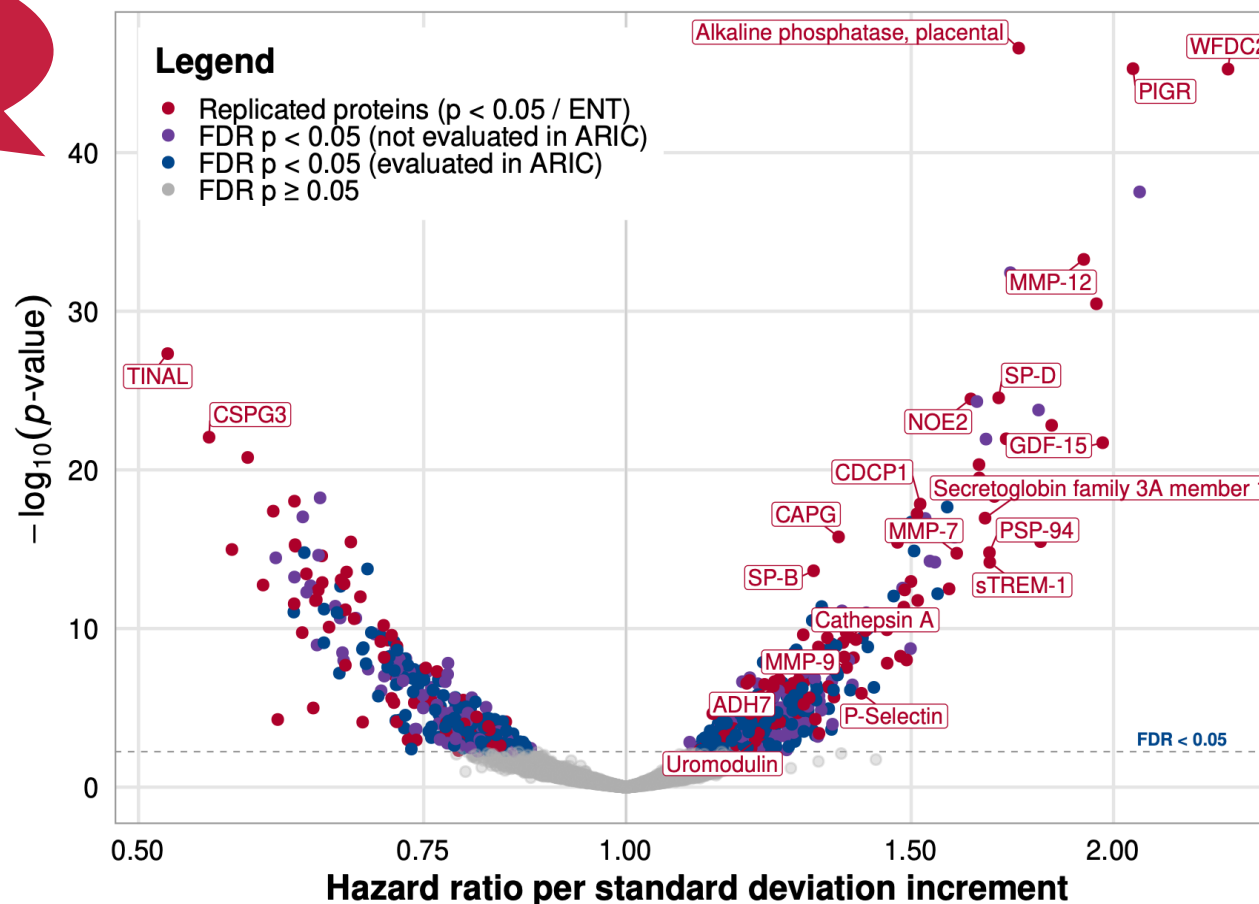
Screening and Early
Detection Session
PT1.04.04

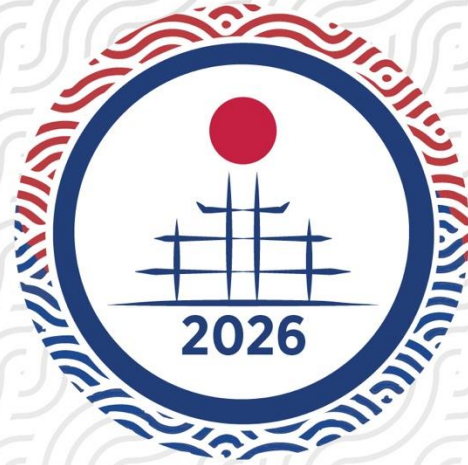
Discovery analysis

883 proteins FDR < 0.05

Replication analysis

195 proteins $p < 0.05/\text{ENT}$





Thank You.