

AI-CVD Myosteatosis and Hepatosteatosis Findings Linked to Diabetes and Heart Failure Presented at Mount Sinai I-ELCAP

NEW YORK CITY, NY, UNITED STATES,
October 10, 2025 /EINPresswire.com/ -Investigators from the AI-CVD™
consortium presented new results
showing strong links between
myosteatosis (fat infiltration in skeletal
muscle) and hepatosteatosis (liver fat)
with downstream risks of type 2
diabetes and heart failure at the IELCAP 48th International Conference
on Screening for Lung Cancer in New
York City. Presentations were delivered
by Susan K. Fried and Andrea D.
Branch, PhD.



Key theme: Opportunistic, Al-enabled analysis of routine noncontrast chest CTs (including lung-screening and CAC scans) can quantify muscle and liver fat to identify individuals at elevated cardiometabolic risk—without additional scan time, cost, or radiation—supporting earlier intervention and prevention.

Presenters

Susan K. Fried, PhD

Professor of Medicine (Endocrinology), Icahn School of Medicine at Mount Sinai. Her research focuses on adipose tissue biology, obesity, and the endocrine and inflammatory pathways that drive cardiometabolic disease, including muscle and liver fat phenotypes. https://scholars.mssm.edu/en/persons/susan-fried

Andrea D. Branch, PhD

Professor of Medicine (Liver Diseases), Icahn School of Medicine at Mount Sinai. Her work centers on viral and metabolic liver disease (including hepatitis C), liver inflammation and fibrosis, and the clinical implications of hepatosteatosis for cardiometabolic risk. https://scholars.mssm.edu/en/persons/andrea-branch

Related publications

Al-detected Myosteatosis Predicts Atrial Fibrillation and Heart Failure (MESA cohort).

Using coronary artery calcium (CAC) scans, AI-CVD quantified thoracic skeletal-muscle attenuation and found that participants with myosteatosis had significantly higher 19-year risks of total CVD, atrial fibrillation (HR≈1.68), and heart failure (HR≈1.61) after multivariable adjustment; adding myosteatosis to CAC improved timedependent AUC for all endpoints, indicating incremental predictive value beyond calcium scoring alone.

Al-derived Liver and Adiposity Metrics Predict Incident Type 2 Diabetes in People Without Obesity or Hyperglycemia. In normoglycemic, non-obese adults from MESA, Al-CVD measures from CAC scans AI-CVD:

AI-GENERATED BIOMARKERS FROM CHEST CT SCANS PLUS CVD RISK FACTORS

Bone Density

Aorta & PA Size

Cardiac Chambers Volume

Aortic Valve Calcification

Artic Valve Calcification

CVD Risk Factors

AI-CVD

Aortic Valve Calcification

Al-CVD components includes AutoChamber, AutoBMD, and several other opportunistic measurements in a CAC scan.

showed that liver fat (liver attenuation index) was the strongest predictor of new-onset type 2 diabetes (HR≈3.13 highest vs. lowest quartile), outperforming other adiposity indices and enhancing discrimination when added to the ADA diabetes risk score—supporting opportunistic CT-based

About AI-CVD™

HeartLung Technologies' AutoChamber™ and AutoBMD™ are integral components of Al-CVD™, a suite of Al-powered tools designed to detect and prevent cardiovascular disease. Al-CVD™ leverages advanced algorithms to analyze CT scans, identifying hidden heart risks and enabling early intervention. This comprehensive approach underscores HeartLung's commitment to revolutionizing preventive healthcare through innovative Al technologies.

Conference

I-ELCAP 48th International Conference on Screening for Lung Cancer (& 16th Conference on Research for Early Lung Cancer Treatment) October 9–11, 2025 — Goldwurm Auditorium, Icahn School of Medicine at Mount Sinai

Conference site: https://www.ielcap.org/

Agenda (PDF): https://www.ielcap.org/wp-content/uploads/IELCAP-48th-Conference-Agenda.pdf

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