



XXIX IFSO World Congress

1-4 September 2026 | Toronto, Canada

PLASMA STREM2 AS A NON-INVASIVE
BIOMARKER FOR EARLY MASH
DETECTION IN WOMEN WITH SEVERE
OBESITY UNDERGOING METABOLIC
BARIATRIC SURGERY

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TORONTO2026

The Future of Obesity Management:
From Weight Loss to Health Gain



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Disclosure Slide

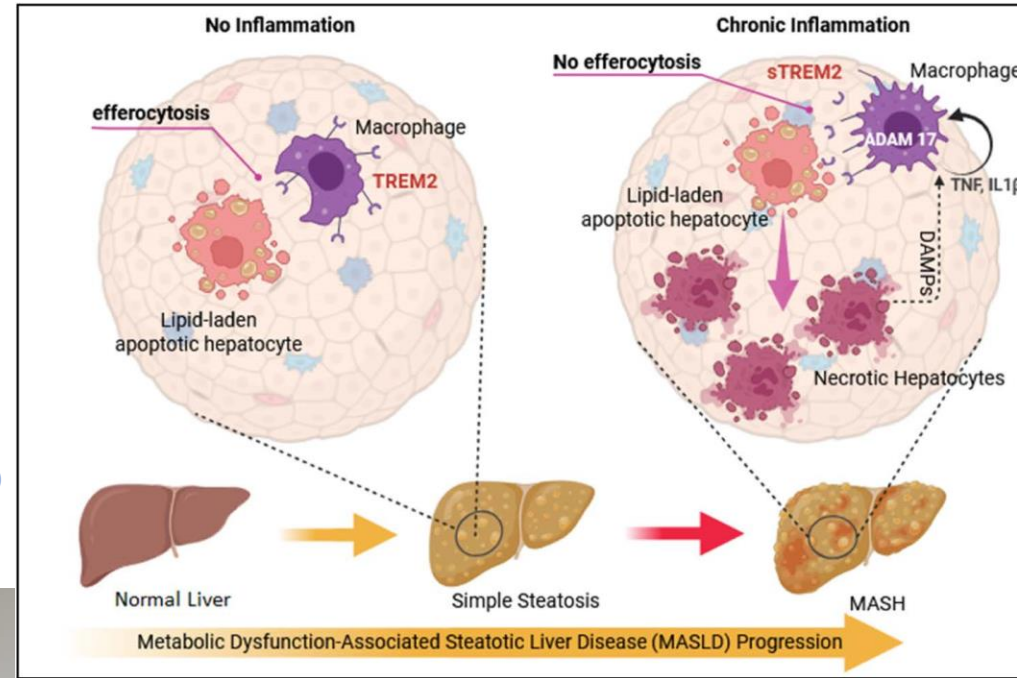
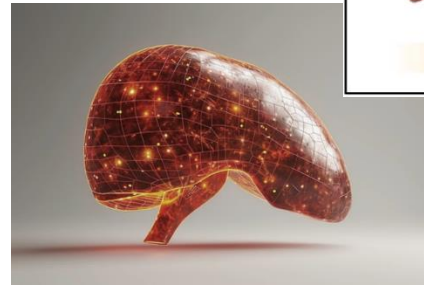
Nothing to disclose

Images of presentation: <https://www.freepik.es/> and own

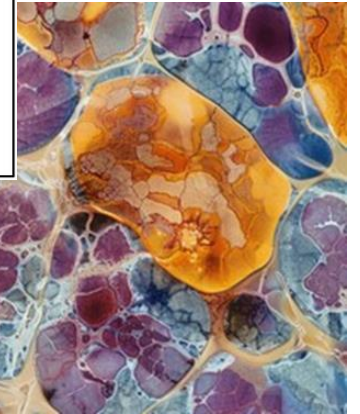


Background

- MASLD leading cause of chronic liver disease worldwide
- Progression to MASH, liver fibrosis, cirrhosis, hepatocellular carcinoma (liver biopsy: INVASIVE)
- Need of non-invasive biomarkers to diagnose early MASH (without fibrosis)
- TREM2-LAMs efferocytosis of hepatocytes in MASLD – Disruption and release sTREM2 in MASH



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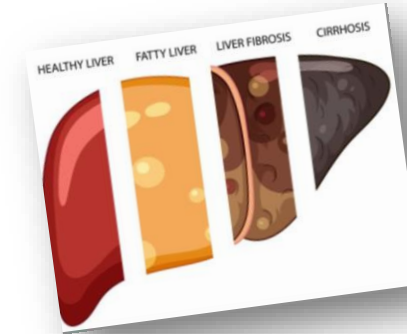
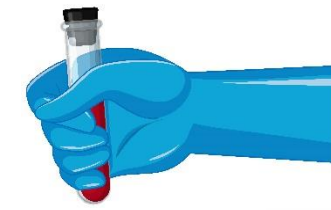
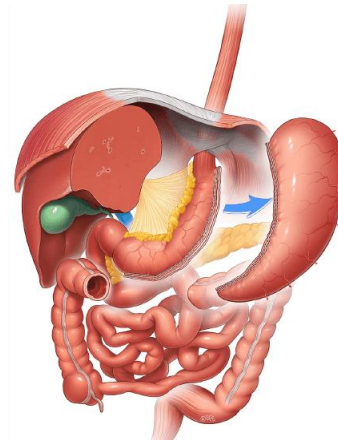
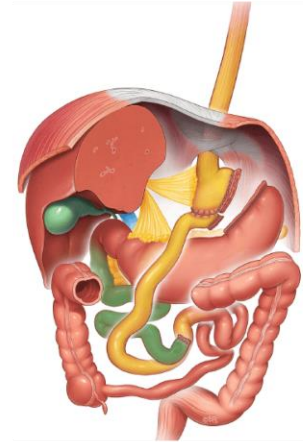
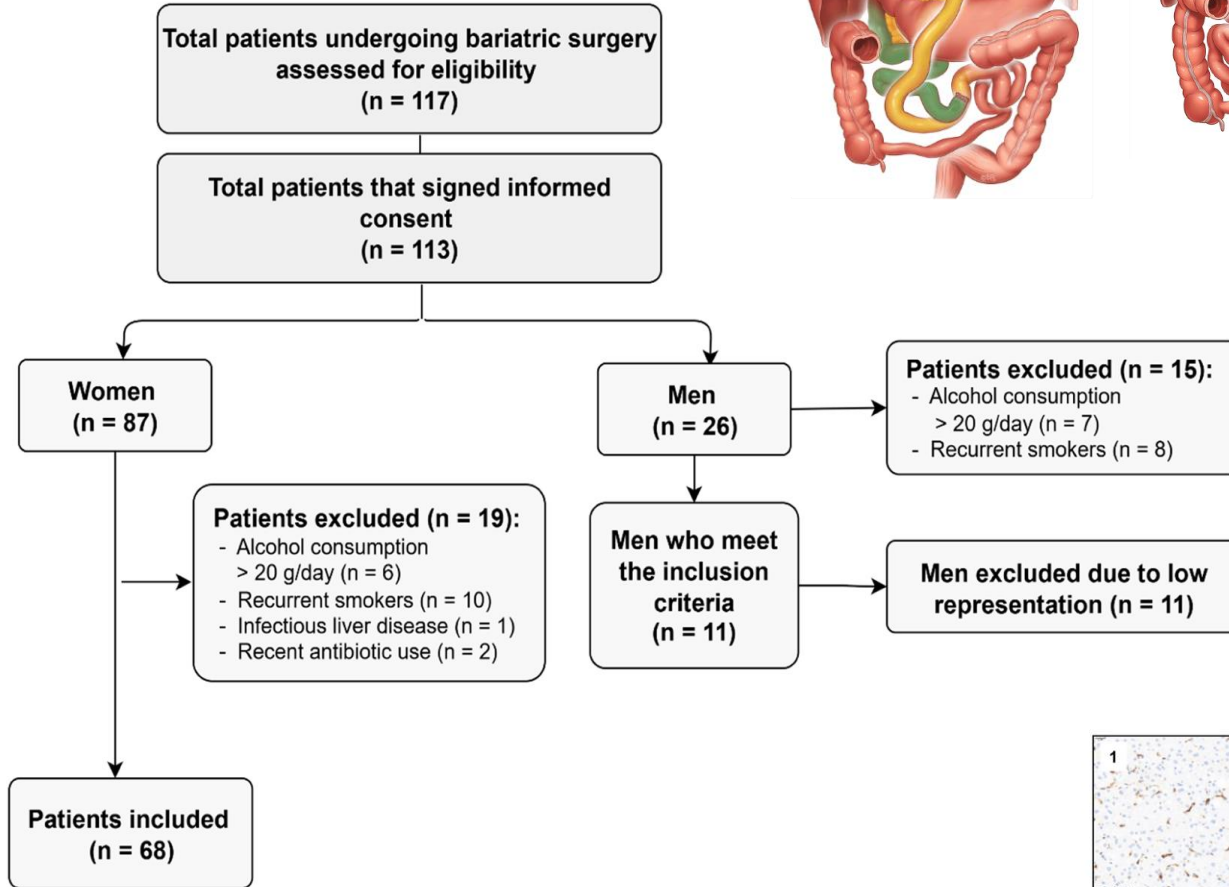


Hypothesis:

Increased macrophage infiltration → ↑hepatic expression of cellular TREM2 in early MASH →
↑ plasma levels sTREM2 → Potential Non-invasive BIOMARKER in MASH



Methods



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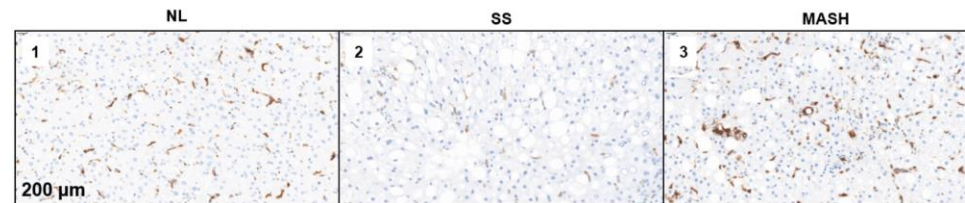
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sTREM2 - ELISA



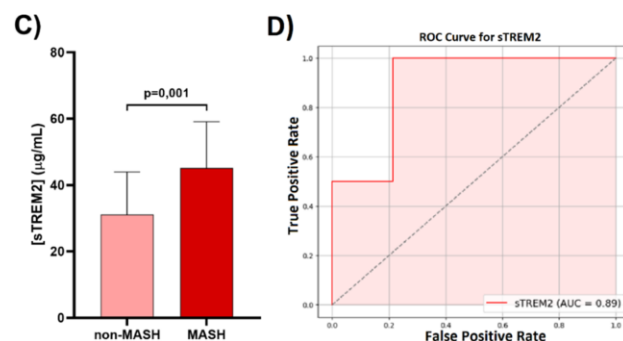
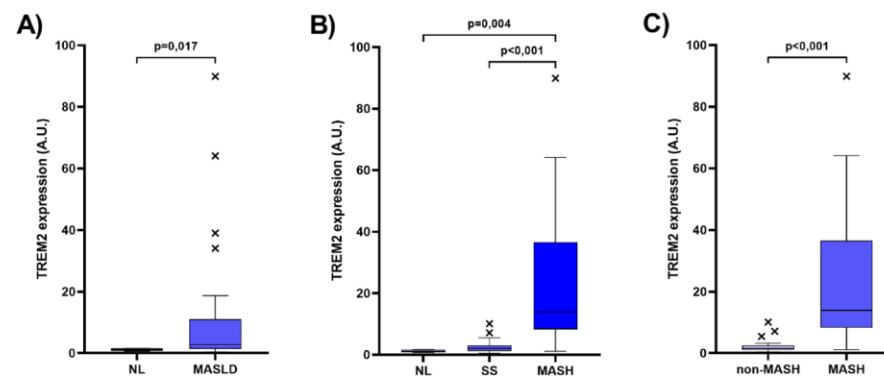
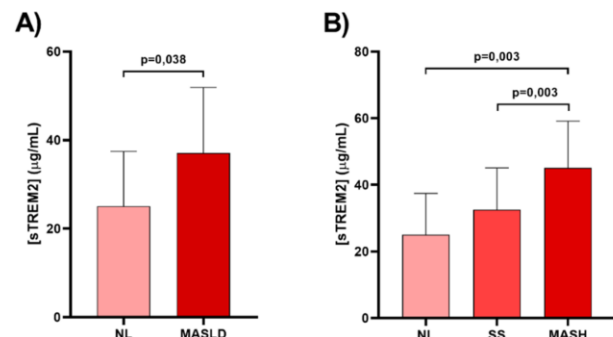
Hepatic TREM2 gene
expression - qPCR



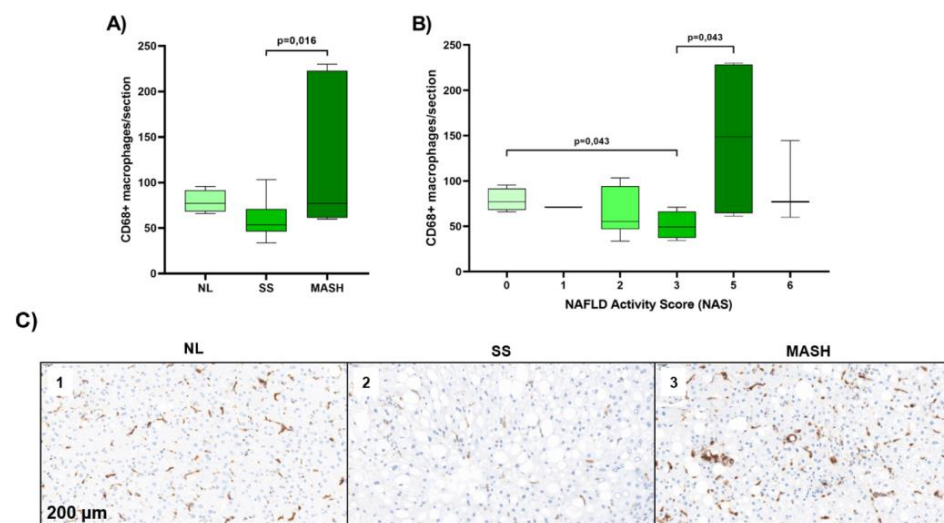
Macrophage infiltration - CD68 immunohistochemistry



Results



- **Hepatic TREM2 mRNA expression** ↑ MASH
- Correlated with histological severity



- **sTREM2 levels** ↑ MASH – ↓NL or SS
- ROC strong diagnosis early MASH (AUC=0,89)
- sTREM2 levels ↑steatosis grade, lobular inflammation and NAS score

Conclusions

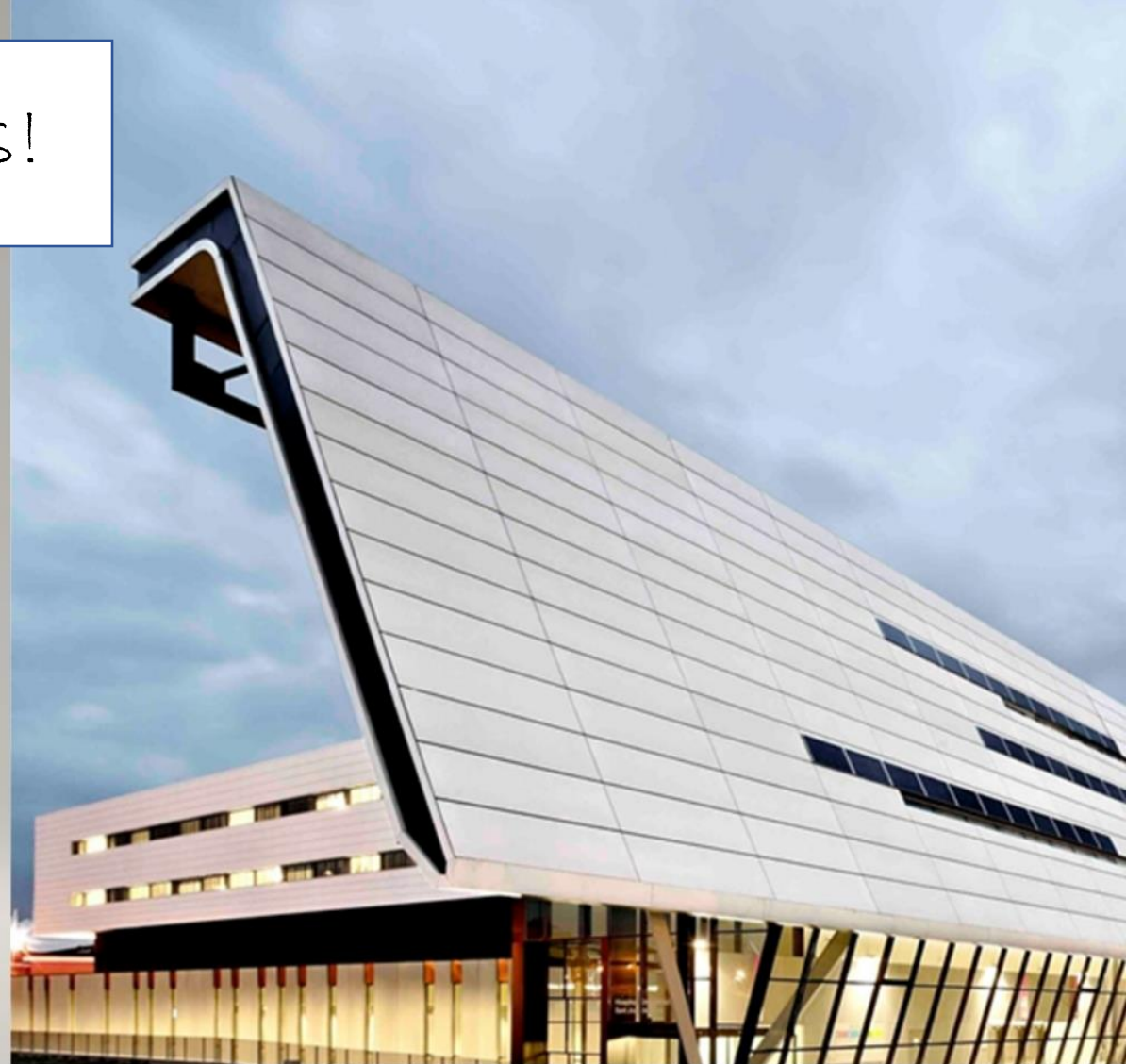
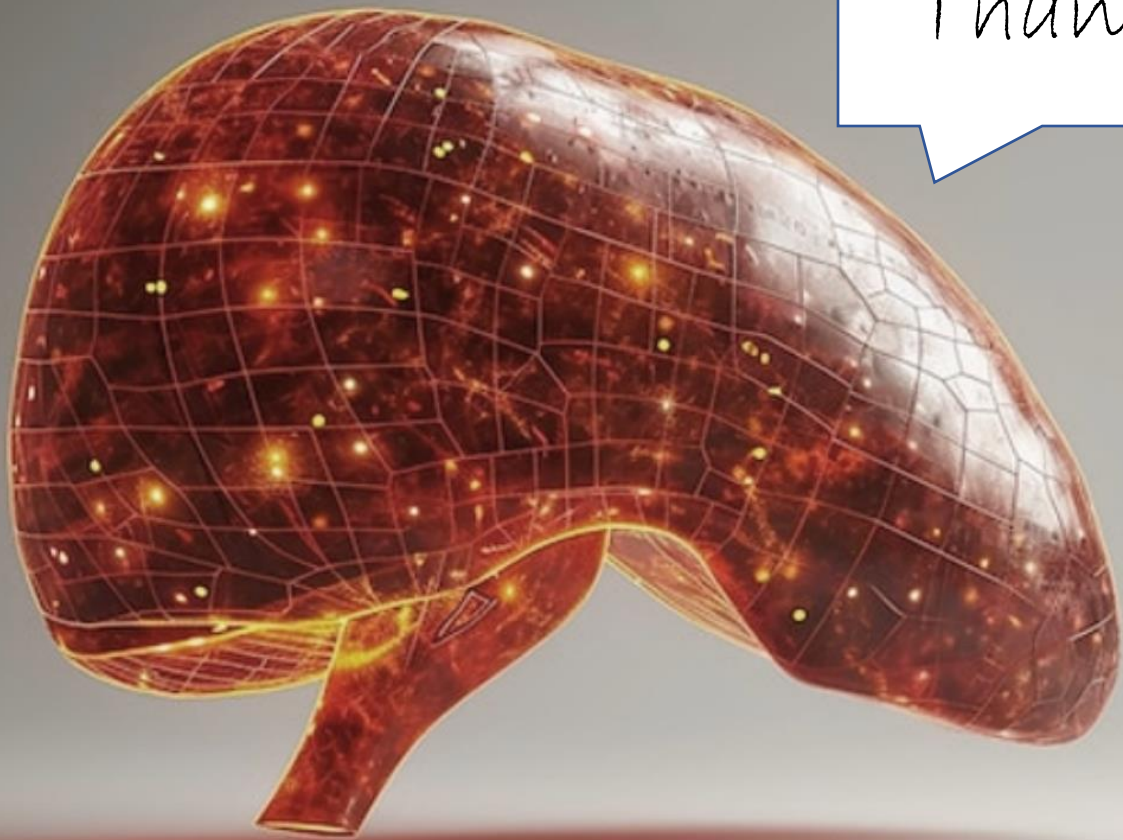
- sTREM2 elevated in early MASH
- Correlates with hepatic TREM2 expression and macrophage infiltration
- Reflects key histological and biochemical features of disease progression

sTREM2 - Promising non-invasive serum biomarker for identifying reversible stages of MASH



- **CD68+ macrophage infiltration** ↑ MASH
- Strong correlations between sTREM2, TREM2 expression, CD68+ cells, and MASLD-related biochemical and histological features.

Thanks!



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