gutflix
GI learning, personalised

Summary

NOVEL BLOOD-BASED PROTEIN BIOMARKER SIGNATURE FOR EARLY DETECTION OF COLORECTAL CANCER AND ADVANCED ADENOMAS

Leonidas Alexopoulos

UEG Week Berlin 2025 | Presentation

Colorectal | Digestive Oncology | IBD | Mechanisms & Personalised Medicine

October 6, 2025

A 12-protein blood biomarker signature detected colorectal cancer with 98.1% sensitivity and advanced adenomas with 50.0% sensitivity in a 260-patient discovery study, part of the Horizon Europe DIOPTRA project.

KEY POINTS

- The signature achieved 100.0% sensitivity (95% CI: 85.8–100.0%) for stage I/II colorectal cancer and 93.1% specificity (95% CI: 77.2–99.2%) for distinguishing advanced neoplasia from non-neoplastic samples.
- Blood samples were analyzed using Olink next-generation proteomics measuring 3,072 proteins, with linear machine learning algorithms identifying the optimal 12-protein panel through 5-fold cross-validation.
- For advanced adenomas, the signature detected 50.0% (95% CI: 37.0–63.0%) overall, with higher sensitivity for adenomas ≥10 mm at 61.1% (95% CI: 35.7–82.7%).
- This is a discovery-phase study; the investigators plan to validate the signature in 1,600 participants (400 per group) using multiplex immunoassays to assess analytical and clinical performance.
- The abstract states the signature outperformed current blood-based in vitro diagnostics for both colorectal cancer and advanced adenoma detection without compromising specificity for non-neoplastic samples.

VIEW THIS CONTENT ON GUTFLIX

https://gutflix.eu/search/d/dcb54a70-a813-11f0-b796-0242ac140006

AI-generated summary

This summary was generated by an AI large language model based on the content transcript. It is for informational purposes only and should not be considered a substitute for clinical judgment. Always rely on your professional expertise and the full clinical context when making clinical decisions.