

AI-Guided Multi-Omic Microbiome Modulation Improves Clinical and Inflammatory Outcomes in Refractory IBD

International Journal of Molecular Sciences (MDPI), 2025
<https://www.mdpi.com/1422-0067/27/1/201>

Design	Real-world, three-month interventional study. Open-label; no randomised control arm.
Population	358 participants with treatment-refractory IBD.
Intervention	Individualized plans combining dietary adjustment, targeted synbiotics, selective antimicrobials and micronutrient correction, generated from baseline stool metagenomics, blood biomarkers, micronutrient panels and clinical data.
Reported outcome	Reduced stool frequency; resolution of urgency and rectal bleeding in most patients; over 70% reported a 'much improved' overall condition; hs-CRP and faecal calprotectin reduced in over 85% of cases.
Interpretation	Patient-reported global impression is a subjective endpoint. The inflammatory markers are objective and should carry the weight of the interpretation.

Scope of this document

This is a one-page orientation to the study design and reported outcomes. It is not a substitute for the publication. Full eligibility criteria, endpoint definitions, assay methods, statistical analysis, confidence intervals, ethics approval, funding and declared conflicts of interest are given in the peer-reviewed paper linked above.

Limitations that apply to this study

The study is not a randomised controlled trial. Without a control arm, placebo response, regression to the mean and selection effects cannot be separated from the intervention effect. Patient-reported outcomes are subjective. Results describe the population studied and should not be extrapolated beyond it.

Requests for analysis-level data or a protocol review: research@nostrabiome.ai

Methodology questions are answered at nostrabiome.ai/research-faq