

Identifying disease trajectories by AI

Florian Tran

UEG Week Berlin 2025

Presentation

Histopathology

IBD

Nurses

October 5, 2025

Machine learning algorithms can identify distinct disease trajectory patterns in IBD patients starting biologic therapy, potentially enabling prediction of treatment response and comprehensive disease control.

KEY POINTS

- The speaker presented work using group-based trajectory modeling and k-means algorithms to classify IBD patients into distinct response patterns including rapid responders, slow responders, rebounders, and partial responders based on daily symptom data.
- Post-hoc analysis of the filgotinib Selection study and reanalysis of vedolizumab versus adalimumab trials demonstrated that fast responders show molecular differences on RNA sequencing and are most likely to achieve comprehensive disease control as stated by the speaker.
- The speaker's group analyzed 380 ulcerative colitis patients in Kiel with different biologics and reported different trajectory groups showed different rates of achieving comprehensive disease control at week 52.
- The Opt IBD consortium funded by the German Ministry of Health is developing an app for daily patient symptom entry to enable machine learning-based prediction of therapy outcomes and potentially guide therapy switch decisions.
- The Three TR EU-funded consortium combined phase two, three, and four registration trials from pharma partners and has recruited 600 IBD patients across six European sites to collect multi-omics data including RNA sequencing, serum samples, and microbiome data.
- The speaker introduced the term minimal residual inflammatory disease and described a new European consortium to study early-disease patients in remission using wearable devices and patient diaries to predict flare-ups.

VIEW THIS CONTENT ON GUTFLIX

<https://gutflix.eu/search/d/ae4af93a-a82e-11f0-95dd-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.