MICROB-PREDICT

MICROBiome-based biomarkers to PREDICT decompensation of liver cirrhosis and treatment response

D9.9 - Consensus-conference for the use of Microbiome-derived markers in liver disease

Project Acronym:	MICROB-PREDICT
Grant Agreement:	825694
Project Duration:	01 January 2019 – 30 September 2026 (93 months)
Version:	FINAL
Date:	31/07/2026
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Due Date of Deliverable	Month 91
Actual Submission Date	31/07/2026
Dissemination Level	PU

Abbreviations

ACLF	Acute-on-chronic liver failure
concentris	concentris research management gmbh
EASL	European Association for the Study of the Liver
EF CLIF	European Foundation for the Study of Chronic Liver Failure
ELPA	European Liver Patients' Association
FCRB	Fundació Clínic per a la Recerca Biomèdica
LUMC	Leiden University Medical Center
PICO	Population (patient group or problem), Intervention, Comparison, and Outcome (framework for formulating clinical research statements)
SC	Steering Committee
UM	University of Münster
UNIDEB	University of Debrecen
QR Code	Quick Response Code
WP	Work Package

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1. Executive Summary

The **MICROB-PREDICT Consensus Conference** took place on **Wednesday, 27 May 2026,** during the annual **EASL Congress** in Barcelona – Europe's largest international congress dedicated to liver health. The Consensus Conference brought together **more than 100 participants** (consortium members, consortium-external hepatology experts, and microbiome researchers) to present and discuss the outcomes of a previously completed **Delphi Survey (Round 1)** on three selected basic science topics (under Theme 1 "Progression of decompensated cirrhosis and ACLF") and three selected clinical topics (under Theme 2 "Mechanisms and biomarkers of therapeutic response") – reflecting the level of expert agreement or disagreement regarding 31 PICO[1]-style basic-science and clinical statements.

The 3h-long Consensus Conference featured expert presentations and structured discussions under the scope of **"Microbiome-based mechanisms and biomarkers for improved patient stratification and prediction of therapeutic response in decompensated cirrhosis and acute-on-chronic liver failure (ACLF)"**. The face-to-face event was sponsored by the European Association for the Study of the Liver (EASL), planned by MICROB-PREDICT's Steering Committee (SC), organised by concentris research management gmbh (concentris), and chaired by coordinator **Prof. Jonel Trebicka**, Director of the Clinic for Internal Medicine B: Gastroenterology, Hepatology, Endocrinology and Clinical Infectiology at the University of Münster (UM) and Deputy Director of the European Foundation for the Study of Chronic Liver Failure (EF CLIF), together with work package 9 (WP9) leader **Prof. Minneke Coenraad**, transplant hepatologist and Medical Director of the Liver Transplantation Unit at Leiden University Medical Center (LUMC). While the Consensus Conference was open to all EASL Congress attendees (no extra registration was required for the Consensus Conference), consortium members were requested to confirm their attendance in advance.

The conference featured **six in-depth presentations by expert junior scientists** from UM in Germany, from the Fundació Clínic per a la Recerca Biomèdica (FCRB) in Spain, and from the University of Debrecen (UNIDEB) in Hungary, accompanied by opening remarks, a general introduction, and lessons learned by the conference chairs. Each presentation was followed by ample time for discussions, questions, and comments from the audience. The Delphi Survey (Round 1) and the Consensus Conference itself resulted in **26 agreed-upon statements** (of the 31 originally proposed statements), provided important expert feedback from hepatology experts for the **revision of five statements** (that did not reach a consensus in Delphi Round 1), and resulted in the drafting of a consensus manuscript (see related *Deliverable D9.12 - Updated clinical practice guideline on cirrhosis and translation for layman*). Based on the discussions and comments during the Consensus Conference, five slightly revised PICO-style statements were shared in June via a second **Delphi Survey (Round 2)** to ensure scientific accuracy and high quality of the resulting consensus manuscript (expected to be submitted for publication in autumn 2026).

In summary, the MICROB-PREDICT Consensus Conference was a successful and highly interactive event, presenting and discussing a synthesis of the project's main outcomes. It provided an important platform to show our results, discuss current evidence, identify areas of agreement as well as disagreement, highlight remaining knowledge gaps, and **define future research priorities and clinical treatment recommendations**. We are excited and satisfied about the number of attendees, the interest in our results, and the overarching collaborative spirit and drive for consensus among the international hepatology community.

[1] PICO, Population (patient group or problem), Intervention, Comparison, and Outcome.

2. Deliverable Report

2.1 Planning and Announcement of the Event

The planning of the Consensus Conference started in **December 2025**, about half a year prior to the event. During monthly **online meetings of the SC** as well as **dedicated WP9 telephone conferences** throughout the following months, the aims, the scope, and the agenda of the event were developed. A central decision was to prepare and conduct an official **Delphi survey** leading up to the conference, so that the outcomes of the first Delphi round (Round 1) could be presented to and discussed with the hepatology community during the actual Consensus Conference at EASL Congress 2026 in Barcelona. Based on the face-to-face character and policy of the overarching EASL Congress, it was decided that the MICROB-PREDICT Consensus Conference was also to be held as a **face-to-face event** (instead of an online or hybrid event).

The event date, time, and room (**27 May 2026, 15:30 – 18:30 h, Jansen Room**, at the Conference Center "Fira Barcelona Gran Via" – the venue of the annual, international EASL Congress) was selected by the SC in close consultation with **EASL** - the liver research association that provided the meeting room within the realm of their annual congress. Concentris took on most of the organisational tasks as well as the communication and promotion of the event, and **EF CLIF** contributed catering for the continued discussions with attendees during the socialising at the end of the conference.

The Consensus Conference was **first announced** to the consortium **in January 2026**, and consortium members were urged to confirm their face-to-face attendance and register via the concentris-hosted platform Keyways early on, prompting the registration and attendance of **41 consortium members**. Subsequently, the event was **announced publicly** a) on the **project website**, b) **via Email** (see Appendix 1) to hepatology experts (contacts assembled by SC members), and c) repeatedly posted **via the project's social media channels** (LinkedIn and BlueSky). See below for the event's announcement visual (Figure 1), screenshots of the promotional video (Figure 2), and the final agenda (Figure 3).

While consortium members were asked to confirm their attendance ahead of time, consortium-external EASL Congress attendees were invited to attend the Consensus Conference without filling out an extra-registration form (as this would have been confusing in light of the already required official registration for EASL Congress). Aside from the officially **required EASL Congress registration**, attendance of the MICROB-PREDICT Consensus Conference itself was **free of charge** for all attendees.



Figure 1. Main announcement visual of the MICROB-PREDICT Consensus Conference.



Figure 2. Screenshots of the final promotional video reminding people of the upcoming Consensus Conference the following week on the project's website and social media channels.

EASL CONGRESS Barcelona Spain 27-30 May 2026

MICROB-PREDICT Consensus Conference

AGENDA

Microbiome-based mechanisms and biomarkers for improved patient stratification & therapeutic response prediction in decompensated cirrhosis and ACLF

Wednesday, 27 May 2026

15:30 – 18:30 h

Jansen Room



15:30 h	START OF THE CONSENSUS CONFERENCE (5 min) Welcome by the coordinator, Jonel Trebicka (UKM, Germany)
15:35 h	INTRODUCTION OF THEMES & TOPICS OF THE CONSENSUS CONFERENCE (10 min) Introduction by Minneke Coenraad (LUMC, The Netherlands)
15:45 h	THEME 1: PROGRESSION OF DECOMPENSATED CIRRHOSIS AND ACLF (55 min) *8-min presentations per topic + 10 min discussion for each topic* • Mechanisms of progression • Biomarkers of progression • Biomarkers of failure within the gut-liver axis
16:40 h	5 min COFFEE + BIO-BREAK
16:45 h	THEME 2: MECHANISMS AND BIOMARKERS OF THERAPEUTIC RESPONSE (55 min) *8-min presentations + 10 min discussion for each topic* • Albumin • Rifaximin • Terlipressin
17:40 h	5 min COFFEE + BIO-BREAK
17:45 h	WHAT LESSONS HAVE WE LEARNT FROM MICROBIOME RESEARCH IN THE FIELD OF DECOMPENSATED CIRRHOSIS AND ACLF ? (15 min) Summary by the coordinator, Jonel Trebicka (UKM, Germany)
18:00 h	SOCIALISING WITH CATERING (30 min) Continued informal discussions between the consortium and attending experts
18:30 h	END OF CONSENSUS CONFERENCE

Figure 3. Agenda of the MICROB-PREDICT Consensus Conference on Wednesday, 27 May, at EASL Congress 2026 in Barcelona, Spain. The agenda was organised into two themes with three topics under each theme.

2.2. Delphi Survey in Preparation for the Consensus Conference

A central decision by the SC was to prepare and share an official **Delphi Survey** (open from 16th April to 18th May 2026) with hepatology and microbiome experts leading up to the conference, so that the outcomes of the Delphi Survey (Round 1) could be presented and discussed at the actual Consensus Conference at EASL Congress 2026 in Barcelona.

The **31 PICO-style statements** for the Delphi Survey (including general scientific background information for each of the six topics and more specific background information for each statement) were prepared by MICROB-PREDICT consortium members from all work packages (WPs), while the SC members provided feedback and revisions.

Concentris took care of organising the **six topic-specific working groups** (3-8 people per topic), designating a working group leader and co-leader, outlining the timeline, and unifying the survey content into the same style and format, using the EU-adapted version of the scientific survey platform Alchemer. See Appendix 2 for the invitation email to the Delphi Survey.

The invitation to participate in the Delphi Survey was shared by the coordinator, Prof. Jonel Trebicka, via Email (see Appendix 2) with **270 experts worldwide** (hepatologists and microbiome researchers with a focus on hepatology). In addition, concentris shared an identical copy of the survey (including a QR Code) publicly via the project's social media channels for inclusivity and to reach hepatologists and microbiome experts far away or outside of the consortium's existing network. The European Liver Patients' Association **(ELPA), EASL**, and **EF CLIF** supported the undertaking by sharing the survey with their networks as well. See Figure 4 below for exemplary screenshots of the online survey (Round 1).

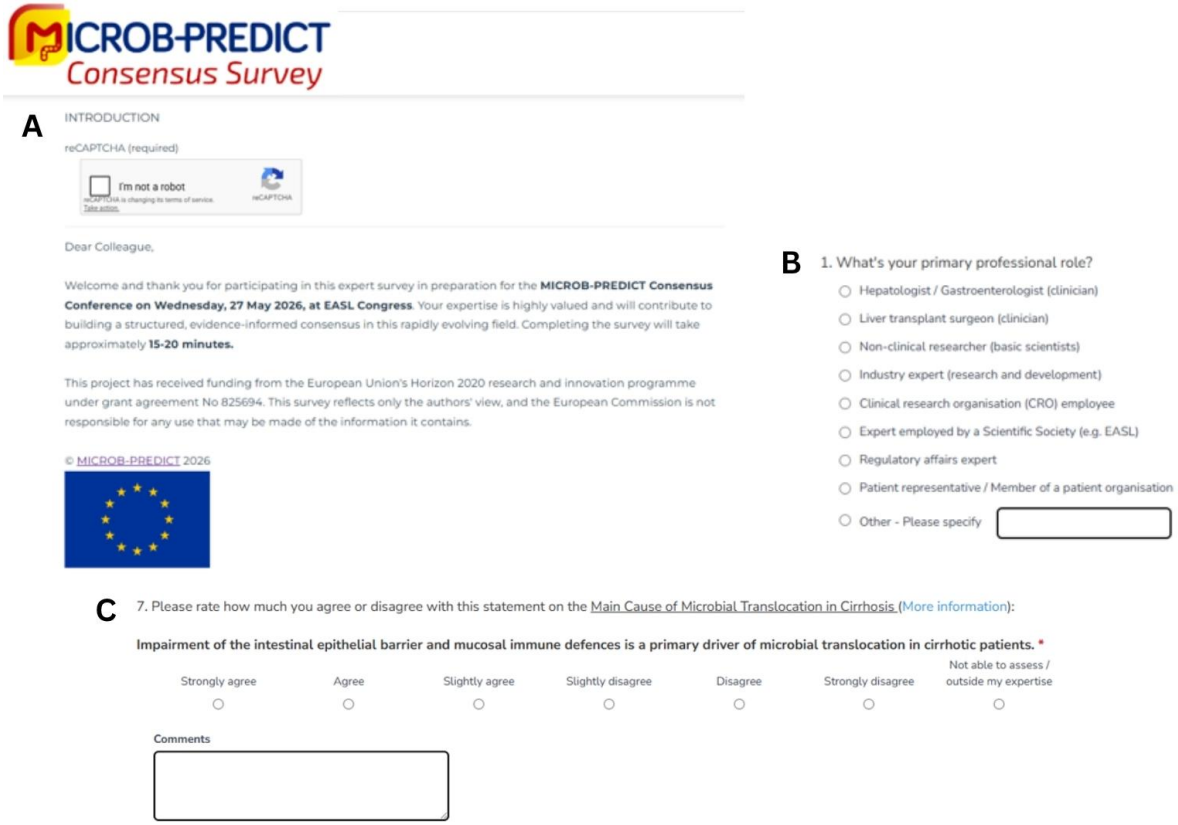


Figure 4. Exemplary screenshots of the online Delphi Survey (Round 1): Introduction (A), one of six voluntary demographics-related questions (B), and one of 31 mandatory statements (C) - in this case a basic-science statement related to "Mechanisms of progression of decompensated cirrhosis & ACLF."

2.3. Execution of the Consensus Conference at EASL Congress 2026

Of **203 Delphi Survey participants** in total, there were **137 qualified participants**, while 66 participants were disqualified as they only answered the demographic questions and then left the survey. About 65% of the participants were men, 35% were women, and 78% were (as intended) clinical hepatologists / gastroenterologists. The detailed results for all 31 statements of Delphi Round 1 (completed prior to the Consensus Conference) and the five revised statements of Delphi Round 2 (completed after the Consensus Conference) will be summarised and published in a comprehensive consortium manuscript (and in the related *Deliverable D9.12 - Updated clinical practice guideline on cirrhosis and translation for layman*) towards the end of the project.

Throughout the 3h-long Consensus Conference, we counted **more than 100 attendees**, including the **41 registered MICROB-PREDICT consortium members**. During the Consensus Conference, a QR Code was shared on the entrance doors for attendees to scan and join the **"MICROB-PREDICT Consensus List"**, an email list for people who would like to receive the final results of the Delphi Consensus process once ready. In total, **35 attendees** that were not members of the MICROB-PREDICT consortium scanned the QR Code and entered their contact details (see Figure 5 below). The remaining attendees preferred not to disclose their names or contact details, but many actively contributed to the discussion after each talk.

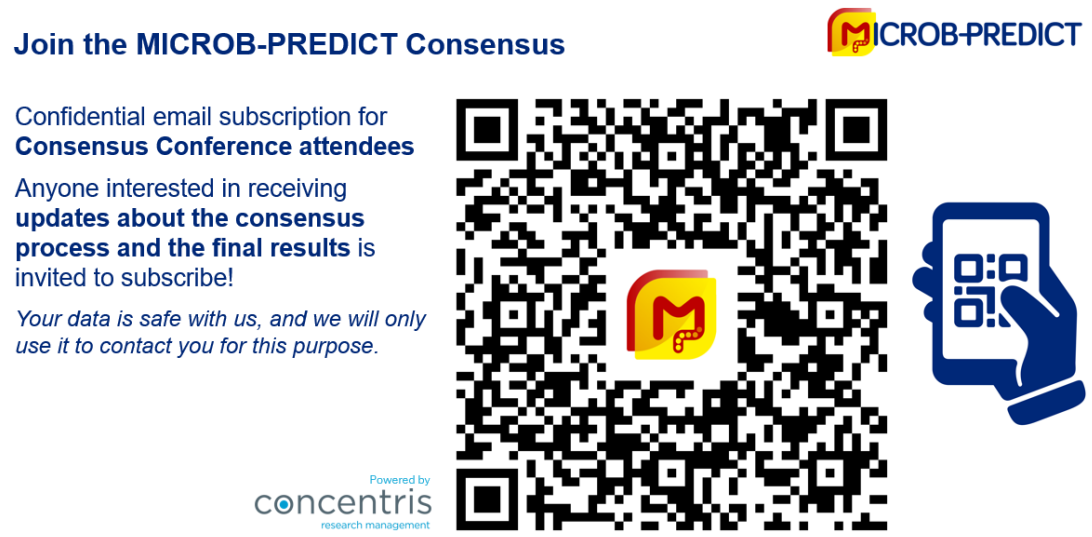


Figure 5. Voluntary Email-subscription for on-site attendees of the Consensus Conference.

Figure 6 below shows a representative images of the meeting room, the speakers, and the talks. After introductory presentations by the **coordinator** and by the **WP9 leader**, **six early-career scientists** presented the **survey results of the 26 agreed-upon statements** (meaning more than 75% of the survey participants had voted "strongly agree", "agree", or "slightly agree" on a given statement in Delphi Round 1) as well as the **five statements that did not reach >75% agreement**, and the scientific background for each topic. After each of the **six topic-talks**, the chairs moderated **lively 10-min long discussions** with the audience. To obtain a realistic and meaningful impression of the conference participants' agreement or disagreement on revised (improved) versions of the five survey statements that had not passed the 75% agreement threshold, we used the interactive feature Mentimeter. After the conference, these revised statements were then officially shared via email in June in a **second Delphi Survey (Round 2)** with the same target group of experts as in Delphi Round 1. Results from both Delphi rounds will be summarised in the resulting consensus manuscript (see also *Deliverable D9.12*).



Figure 6. Representative photographs of the Consensus Conference chairs, speakers, presentations, meeting room and attendees. Top row, left side: WP9 leader, Prof. Minneke Coenraad (LUMC) with project coordinator, Prof. Jonel Trebicka (UM and EF CLIF). Top row, right side: Prof. Minneke Coenraad (LUMC, in the middle) with the early-career speakers. Middle row: Early-career speakers presenting the scientific background of the six topics and the outcomes of the Delphi Survey (Round 1), from left to right: Dr. Robert Schierwagen (UM), Dr. Cristina López-Vicario (FCRB), Dr. Dávid Tornai (MD, PhD) from UNIDEB, Dr. med. Silvia Letmathe (UM), Dr. med. Frank Uschner (UM), Dr. med. Maximilian Brol (UM). Bottom row: Snapshots of the conference room and audience, including discussion with experts.

3. Social Media Coverage and Impact

The conference resulted in very positive personal feedback from attendees during the continued discussions at the end (during the socialising agenda point), and several survey participants had also submitted appreciative general feedback at the end of the Delphi Survey.

The Consensus Conference was **covered live on social media** by individual attendees and by concentris - with several posts summarising the highlights, the discussion, and contributions of individual speakers. See Figures 7 and 8 for examples of the social media coverage on LinkedIn. Similar, slightly shorter posts were shared on the project's BlueSky account. In total, the Consensus Conference itself and the promotion and coverage of **approximately 50 other activities of MICROB-PREDICT members** at EASL Congress 2026 (oral presentations, posters, educational sessions, and symposia), resulted in about **120 posts** on MICROB-PREDICT's social media accounts. The **65 posts** on the project's LinkedIn account between 01.04.-30.06.2026 amounted to a measurable impact of more than **39,000 (39K) impressions, 906 reactions,** and **53 new followers** (see Figure 9).

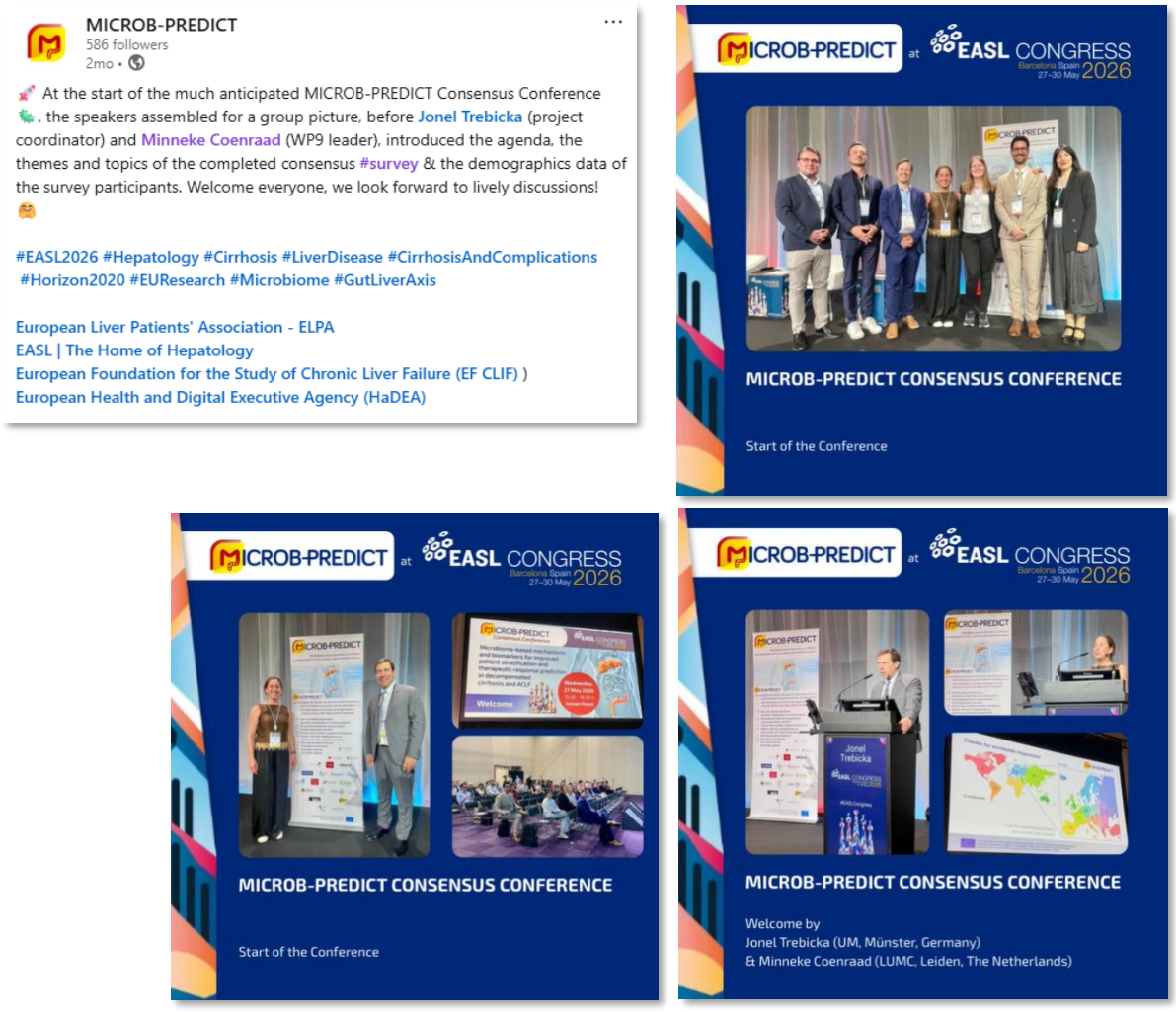


Figure 7. Example of a live coverage social media post (text and snapshots) on LinkedIn at the start of the MICROB-PREDICT Consensus Conference. Click here to access the full post.

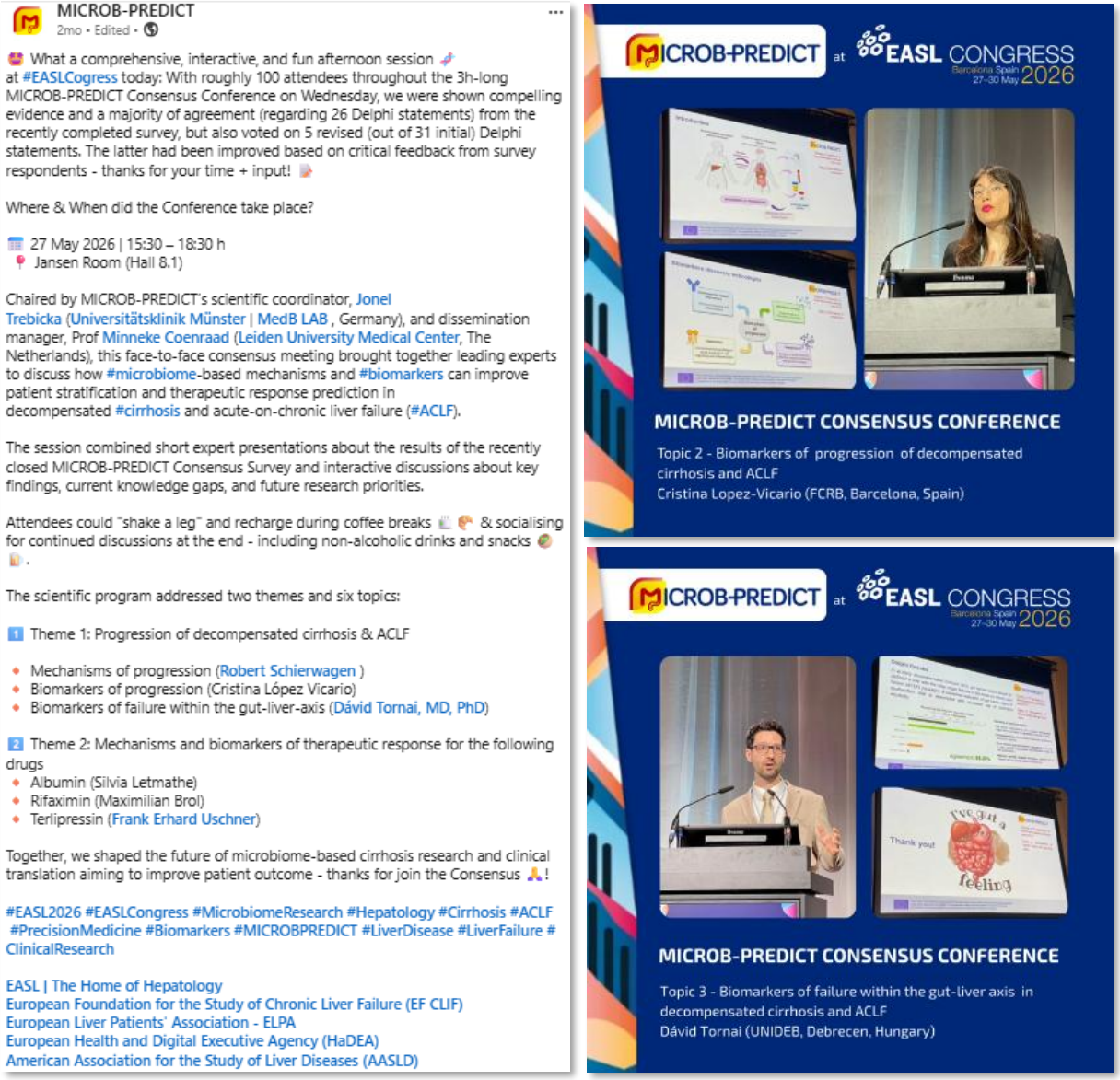


Figure 8. Example of a summarising social media post (text and snapshots of the summary video) on LinkedIn immediately after the MICROB-PREDICT Consensus Conference. Click here to access the post.

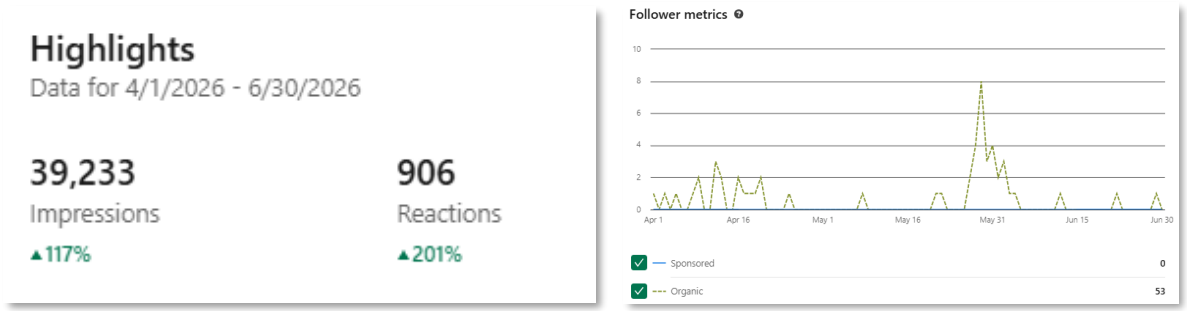


Figure 9. Impact of announcement posts, live coverage posts, and summary posts on LinkedIn – promoting the MICROB-PREDICT Consensus Conference, the related Delphi Survey, and more than 50 related activities of consortium members at the annual EASL Congress 2026 in Barcelona, Spain.

4. Conclusion

The **MICROB-PREDICT Consensus Conference** successfully brought together consortium members and the wider international hepatology community (including microbiome researchers with a focus on hepatology) to discuss key project outcomes and build an expert consensus on microbiome-based mechanisms and biomarkers in decompensated cirrhosis and ACLF.

Building on the preceding Delphi Survey (with 31 basic-science and clinical statements), the face-to-face conference provided a **highly interactive platform** to present and review areas of agreement, identify areas of disagreement – including statements that required further refinement, and discuss remaining knowledge gaps and future research priorities with the audience.

The event attracted **more than 100 attendees**, generated strong engagement during the **scientific discussions**, and laid the foundation for the final **consensus manuscript** (currently in preparation, to be submitted for publication in autumn 2026).

Together with the accompanying **dissemination and social media activities**, the Consensus Conference represented an important milestone in translating MICROB-PREDICT's scientific results into a collaborative consensus – driven by the international hepatology community – with the goal to inform and advise both **future research decisions** as well as **updated clinical practice recommendations** for patients suffering from decompensated cirrhosis or ACLF.

5. Acknowledgement and Disclaimer



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825694. This report reflects only the authors' view and the Commission is not responsible for any use that may be made of the information it contains.

6. Appendices

6.1. Appendix 1 – Invitation Email to the Consensus Conference

Dear Colleague,

We are pleased to invite you to the (face-to-face) **MICROB-PREDICT Consensus Conference** during EASL Congress in Barcelona, Spain, at the end of May.

Title: Microbiome-based mechanisms and biomarkers for improved patient stratification & therapeutic response prediction in decompensated cirrhosis and ACLF

- Date: **Wednesday, 27th May 2026**
- Time: **15:30 – 18:30 h**
- Room: **Jansen Room** (250 pax)
- Venue: Conference Center "Fira Gan Via (North Entrance)", Barcelona
- Important: Only for registered EASL Congress attendees (register here)

Please find attached the detailed agenda.

The conference will be chaired by the MICROB-PREDICT's scientific coordinator Prof. Jonel Trebicka (UKM, Germany) and Prof. Minneke Coenraad (LUMC, The Netherlands) and will bring together leading experts to facilitate a consensus on the following microbiome-focused research areas in the field of decompensated cirrhosis and acute-on-chronic liver failure (ACLF).

The scientific program will address two main themes with three topics per theme:

Theme 1: Progression of decompensated cirrhosis & ACLF

- Mechanisms of progression
- Biomarkers of progression
- Gut failure

Theme 2: Mechanisms & biomarkers of therapeutic response

- Albumin
- Rifaximin
- Terlipressin

The 3h-long Consensus Conference will include short expert presentations followed by structured discussions aimed at identifying key results as well as current knowledge gaps and future research priorities. The conference will conclude with a summary of lessons learned from microbiome research in this field, followed by socialising and refreshments at the end.

We would be delighted to welcome you to this discussion and look forward to your participation!

- In April, you will receive a separate invitation to participate in a Mini-Delphi Questionnaire on these topics before the Consensus Conference. We highly value your expertise and input.

Warm regards,

Prof Jonel Trebicka & Prof Minneke Coenraad

(on behalf of the MICROB-PREDICT Consortium)

6.2. Appendix 2 – Invitation Email to the Delphi Survey

Dear Colleague,

We invite you to complete (and share) this short **Consensus Survey** in preparation for the MICROB-PREDICT Consensus Conference on Wednesday, 27 May 2026, during EASL Congress in Barcelona, Spain.

- Survey Scope: **Microbiome-based mechanisms and biomarkers for improved patient stratification and prediction of therapeutic response in decompensated cirrhosis and acute-on-chronic liver failure (ACLF)**
- Survey Link: https://survey.alchemer.eu/s3/91081387/MICROB-PREDICT-Delphi
- Completion Time: **15-20 minutes**

Your expertise in hepatology is highly valued and will contribute to building a structured, evidence-informed Delphi-style consensus in this rapidly evolving field.

Theme 1: Progression of decompensated cirrhosis and ACLF
Topic 1: Mechanisms of progression
Topic 2: Biomarkers of progression
Topic 3: Biomarkers of failure within the gut-liver axis

Theme 2: Mechanisms and biomarkers of therapeutic response
Topic 4: Albumin
Topic 5: Rifaximin
Topic 6: Terlipressin

Responses are fully anonymised and will be analysed in aggregate only.

Thank you in advance for taking a couple of minutes to complete the survey!

Kind regards & See you soon in Barcelona,

Prof Jonel Trebicka (University Hospital Münster EF CLIF)
Prof Minneke Coenraad (Leiden University Medical Center)

(on behalf of the MICROB-PREDICT Consortium)

