MICROB-PREDICT

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

D9.7 Second patient and layman event

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	Jonel Trebicka (01 EFCLIF)
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1. Executive Summary

'*Therapies for acute decompensation of cirrhosis and ACLF, research needs and outlook*.' Under this title, on June 9, 2021, an event was organized dedicated to patients focused on DECISION, MICROB-PREDICT, and A-TANGO, medical research project (Fig. 1).



Fig. 1: Screenshot of Announcement from ELPA's Twitter Account

Three EU-funded research projects, MICROB-PREDICT, DECISION, and A-TANGO, joined forces to improve the prevention and treatment of cirrhosis. All three consortia aim to understand the disease better, identify biomarkers and mechanisms that predict when the body can no longer compensate for the dysfunctional liver (decompensated cirrhosis) when decompensated cirrhosis progresses to acute on chronic liver failure (ACLF), and patient's individual treatment response. They strive to develop novel diagnostic tools based on the newly identified biomarkers for earlier and better patient stratification and establish personalized and effective treatment strategies. In MICROB-PREDICT, the focus thereby lies on microbiome-based strategies. DECISION aims to identify new combinatorial therapies, and A-TANGO will investigate one specific, promising substance in a clinical trial.

During the meeting, the projects and their implications for the future management of patients with cirrhosis were discussed.

2. Deliverable report

DECISION, MICROB-PREDICT and A-TANGO online educational event for patients - 9th June 2021, 3.30 - 05.00 p.m. CEST

Organizing committee:

Marko Korenjak, ELPA President

Prof. Dr. Pierre-Emmanuel Rautou, professor of Hepatology Hôpital Beaujon, Inserm UMR, France, principal investigator DECISION, EF Clif, Barcelona, Spain

Prof. Dr. Jonel Trebicka, professor of Hepatology Goethe University Frankfurt, Germany, principal investigator MICROB-PREDICT, EF Clif, Barcelona, Spain

Prof. Dr. Rajiv Jalan, professor of Hepatology University College London, UK, principal investigator A-TANGO, EF Clif, Barcelona, Spain

Dr. Ameli Schwalber, concentris research management, Germany, project management office

Participants:

22 participants incl. representatives of national patient organisations from 12 different countries (Fig. 2). The invitation is attached to this report.

Institution	Country
Catalan Association of Liver Patients – ASSCAT	Spain
Charité - Universitätsmedizin Berlin	Germany
concentris research management GmbH	Germany
European Foundation for the study of Chronic Liver Failure (EF-CLIF)	Spain
ELPA Office	Belgium
Fédération SOS hépatites France	France
Goethe University Frankfurt	Germany
HEP HELP KLUB	Slovakia
Hepar Centar – Bitola	North Macedonia
Institut National de la Sante et de la Recherche Medicale, INSERM	France
HEPYAŞAM – Living with Hepatitis Association	Turkey
Hetz – Israeli Association For The Health Of the Liver	Israel
Leverforeningen	Denmark
Riksföreningen Hepatit C – RHC	Sweden
Slovenian Association for patients with viral hepatitis SLOVENIA HEP	Slovenia
University College London	United Kingdom

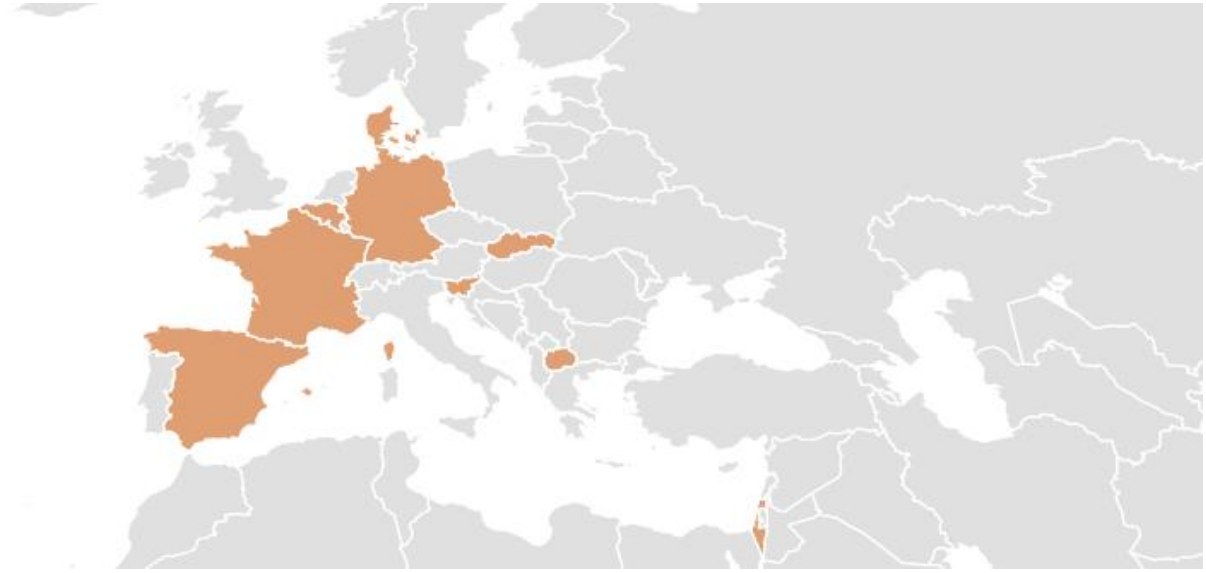


Fig. 2: Overview of the different countries that participated in the patient event



Fig. 3: Screenshot of the introductory talk by Prof. Dr Rajiv Jalan

An introduction by **Prof Dr Rajiv Jalan** (Fig. 3), professor of Hepatology University College London, UK, principal investigator A-TANGO, EF Clif, Barcelona, Spain, gave the participants a short but exhaustive explanation of why treating cirrhosis is an unmet need. He presented some data, the state of the art of research around this topic, and stressed that few treatment options are currently available. Then, he briefly described his colleagues, underlining how the three projects represent three different approaches that want to solve the same underestimated problem.

The first presentation was made by **Prof Dr Pierre-Emmanuel Rautou** (Fig. 4), professor of Hepatology Hôpital Beaujon, Inserm UMR, France, principal investigator DECISION, EF Clif, Barcelona, Spain. He gave an overview of existing therapies, drugs, and research needs. He also focused on the DECISION Project and its goal. It aims to identify a specific group of patients with cirrhosis, providing them with personalized management. Also, DECISION builds its investigation on a better understanding of the pathophysiology of acute decompensated cirrhosis. To do that, the project is analyzing a lot of data and samples. With this newly created knowledge, the project aims to change how these patients are managed.



Fig. 4: Screenshot of Prof Dr Pierre-Emmanuel Rautou's talk

Then, **Prof Dr Jonel Trebicka** (Fig. 5), professor of Hepatology Goethe University Frankfurt, Germany, principal investigator MICROB-PREDICT, EF Clif, Barcelona, Spain, started his presentation sharing the vision of the project also in the context of the other two projects. He focused on the complications of cirrhosis that, in the end, lead to systemic inflammation, the key to acute decompensation, and also organs failure (ACLF). He explained the hypothesis that the microbiome in the gut is connected to acute decompensation in patients with cirrhosis. This is the reason why the project wants to investigate the human microbiome. Studying it would mean identifying predictors and mechanisms associated with the development of decompensation and progression to ACLF and death. Also, this will result in better stratification of cirrhotic patients allowing personalized treatments.

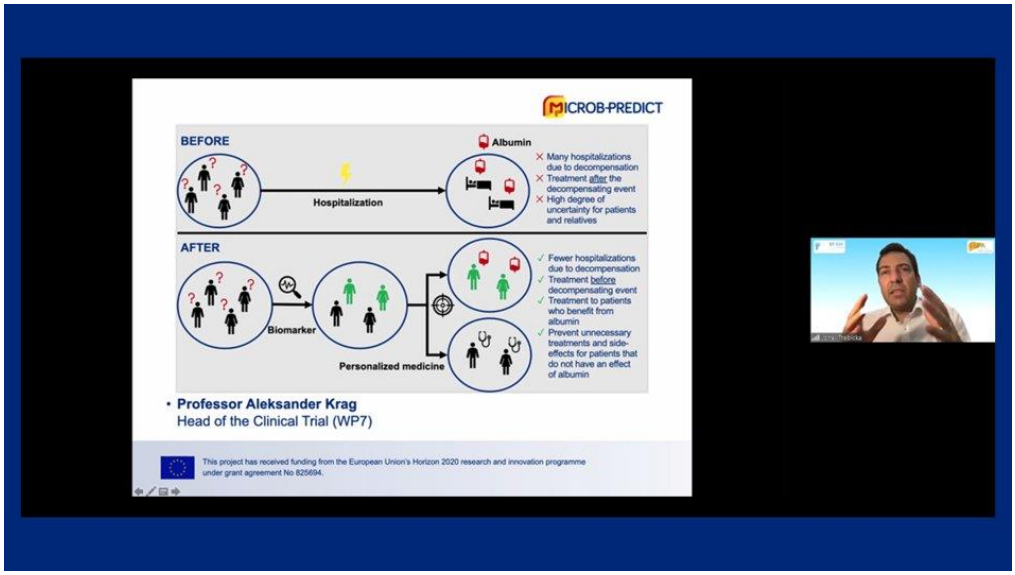


Fig. 5: Screenshot of Prof Dr Jonel Trebicka's talk

Dr Cornelius Engelmann (Fig. 6) followed Prof Dr Trebicka. He gave information to the attendees regarding G-TAK as a promising drug candidate in the framework of the A-TANGO project. He started his talk underlining that the three projects have all the same goal: improving liver patients' lives. Then, after an overview on ACLF, its complexity, diagnostic criteria, grades, and mortality, he entered into the details of the project, presenting the substance that is at the basis of the new treatment and the clinical trial. In conclusion, he made clear that not only is it essential to identify who has to be treated but also with what they should be treated.

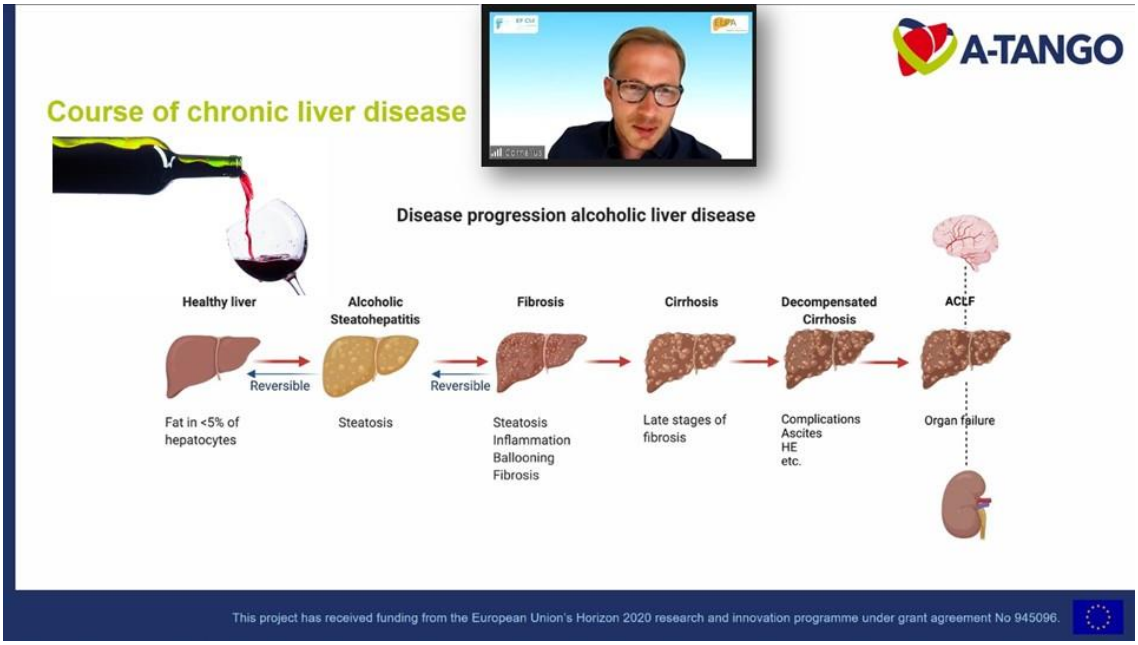


Fig. 6: Screenshot of Dr Cornelius Engelmann's talk

A questions and answers session, moderated by **Mr Marko Korenjak**, ELPA President, allowed the participants to go deeper into projects' details. A central topic of this part was in regards to how patients' associations can work on cirrhosis, especially to changing the perception of this disease because it is still carrying stigma and misconceptions.

A short Twitter overview:

Before, during and after the event, contents were shared on Twitter. Here a short summary of the results of the MICROB-PREDICT Twitter account (more tweets were shared with A-TANGO, DECISION and ELPA accounts):

MICROB-PREDICT	ELPA European Liver Patients' Association
11 Tweets	**3 Tweets**
11.033 Tweet impressions	**15.422 Tweet impressions**
67 re-tweets	**32 re-tweets**
110 likes	**43 likes**

Screenshots of Twitter posts (MICROB-PREDICT account):

MICROB-PREDICT @MicrobPredict · 14. Juni

EFCLIF is the world largest organisation working towards the understanding of #cirrhosis and working out new options for diagnostics and treatments using data of thousands of patients in different international cohorts. @ef_clif @RajivJalan1 @EuropeLiver @EASLnews @APASLnews



6 9

MICROB-PREDICT @MicrobPredict · 14. Juni

"The syndrome Acute-on-chronic liver failure is characterised by failure of several organs." explains Prof. Trebicka to representatives of patient organisations from 10 different countries on 9th June. @JonelTrebicka @EuropeLiver @TransHep_GUF @EASLnews @ef_clif @EU_H2020



6 7

MICROB-PREDICT @MicrobPredict · 14. Juni

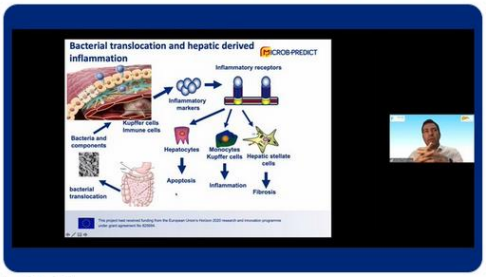
Prof. @JonelTrebicka presenting the MICROB-PREDICT project at the 2nd @EuropeLiver patient event on 9th June. MICROB-PREDICT aims for better stratification of cirrhotic patients enabling #microbiome-based intelligent treatment. @TransHep_GUF @EASLnews @ef_clif @EU_H2020



7 10

MICROB-PREDICT @MicrobPredict · 14. Juni

A leaky gut leads to bacterial translocation and hepatic derived inflammation. This can lead to cell death, inflammation, and fibrosis. This shows that the gut and its microbiome is clearly connected to #cirrhosis and #ACLF. @EuropeLiver @TransHep_GUF @EASLnews @ef_clif @EU_H2020

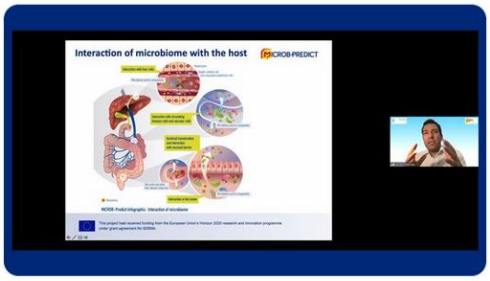


Jonel Trebicka

7 14

MICROB-PREDICT @MicrobPredict · 14. Juni

One treatment of #cirrhosis and ACLF is #Rifaximin, but evidence, which patients benefit most, is still insufficient. Another treatment is #Albumin. MICROB-PREDICT aims to identify responders from non-responders. We hope that #microbiome will help to better stratify the patients.

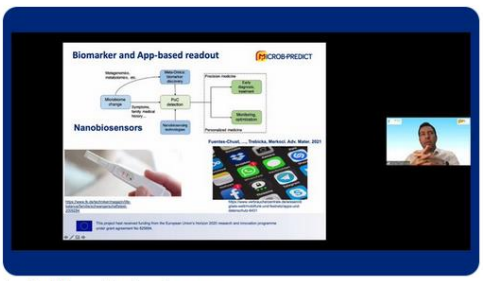


Jonel Trebicka und 5 weitere Personen

6 11

MICROB-PREDICT @MicrobPredict · 14. Juni

MICROB-PREDICT aims to develop three tests to stratify patients at risk of progression of #cirrhosis, and non-responders vs. responders to #Albumin and #Rifaximin. Our approach is nanobiosensor-based tests as point-of-care device for patients and clinicians.



Jonel Trebicka und 5 weitere Personen

6 9











A short LinkedIn overview:

Before and after the event, contents had been sharing on LinkedIn. Here a short summary of the results.

2 Posts

130 Post impressions

6 likes

Screenshots of LinkedIn posts (MICROB-PREDICT account):



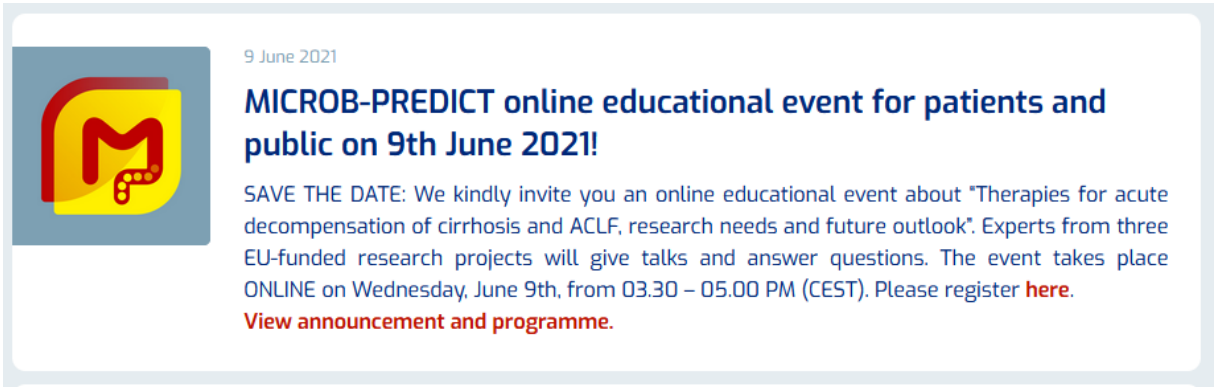


Website posts:

In the following we present some statistics on our promotional activities on our website during the period of 10.05.2021 – 15.06.2021.

Screenshots of website posts (https://microb-predict.eu/):





There were several updates and news posts on the MICROB-PREDICT website during the period analysed. The numbers presented here can therefore not be related exclusively to the promotional activities of the patient event on June 9th (Fig. 8).

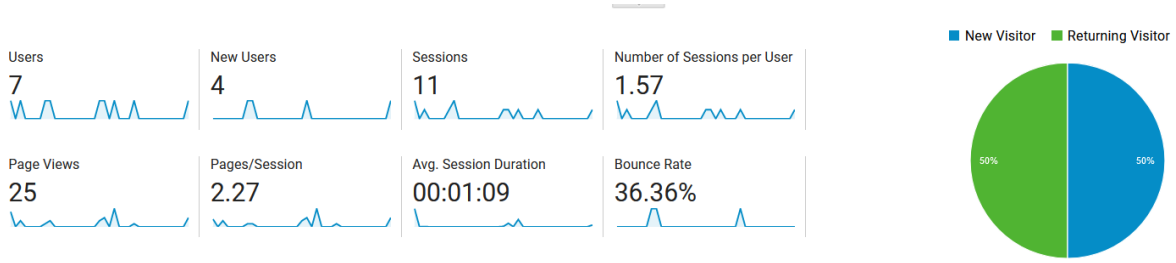


Fig. 8: Screenshot of website activities (https://microb-predict.eu/)

YouTube:

The talks have also been recorded and published on our YouTube channel.
https://www.youtube.com/watch?v=dScCOqphu9k

3. 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 author's view and the Commission is not responsible for any use that may be made of the information it contains.

4. Attachment



'Therapies for acute decompensation of cirrhosis and ACLF, research needs and outlook'

ELPA presents:
DECISION, MICROB-PREDICT and A-TANGO
online educational event for patients
on 9th June 2021, 3.30 - 5.00 p.m. CEST

Organizing committee:

Marko Korenjak, ELPA President

Prof. Dr. Pierre-Emmanuel Rautou, professor of Hepatology Hôpital Beaujon, Inserm UMR, France, principal investigator DECISION, EF Clif, Barcelona, Spain

Prof. Dr. Jonel Trebicka, professor of Hepatology Goethe University Frankfurt, Germany, principal investigator MICROB-PREDICT, EF Clif, Barcelona, Spain

Prof. Dr. Rajiv Jalan, professor of Hepatology University College London, UK, principal investigator A-TANGO, EF Clif, Barcelona, Spain

Dr. Ameli Schwalber, concentris research management, Germany, project management office

Dear representatives of the national patients' associations,

We kindly invite you to the online educational event for patients of the DECISION, MICROB-PREDICT and A-TANGO project, on Wednesday June 9th, 03:30-05:00 PM, available via Zoom. Please register here.

Three EU-funded research projects, MICROB-PREDICT, DECISION and A-TANGO, join forces to improve the prevention and treatment of cirrhosis. All three consortia aim to better understand the disease, identify biomarkers and mechanisms that predict when the body can no longer compensate for the dysfunctional liver (decompensated cirrhosis), when decompensated cirrhosis will progress to acute-on-chronic liver failure (ACLF), and patient's individual treatment response. They strive to develop novel diagnostic tools, based on the newly identified biomarkers, for earlier and better patient stratification and to establish personalized and effective treatment strategies. In MICROB-PREDICT, the focus thereby lies on microbiome-based strategies. DECISION aims to identify new combinatorial therapies and A-TANGO will investigate one specific, promising substance in a clinical trial. We would like to inform you on the projects and their implications for the future management of patients with cirrhosis. We would like to discuss with you how to best disseminate this information in the national patient associations. We look forward to meeting you virtually at June 9th!

On behalf of the organizing committee,

Marko Korenjak, ELPA President

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Programme:

Chairs: M. Korenjak, R. Jalan

15:30-15:35	Welcome and Introduction (Rajiv Jalan & Marko Korenjak)
15:35-15:55	Overview of existing therapies, drugs and research needs (DECISION, Pierre-Emmanuel Rautou)
15:55-16:15	Candidates/pathways/targets that will be important in future, e.g gut-liver axis, microbiota (MICROB-PREDICT, Jonel Trebicka)
16:15-16:35	G-TAK as a promising drug candidate (A-TANGO, Cornelius Engelmann)
16:35-17:00	Questions and answers (moderated by Marko Korenjak)

www. decision-for-liver.eu

www.microb-predict.eu

www.a-tango.eu

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