

SepsisFAT

The Impact of Metabolic Dysfunction-Associated Steatotic Liver Disease on Sepsis Immune Responses



What do we propose

- A comprehensive interdisciplinary clinical, microbiological, genomics, immunological and biomarker study aimed to describe the role of metabolic syndrome and liver steatosis (MASLD) in severe bacterial infections

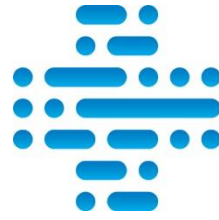
Aims:

- To describe the impact of metabolic syndrome and MASLD on infections outcomes
- To identify sepsis phenotypes associated with MASLD and MetS
- To analyze differences in immune responses to infections in patients with MASLD and MetS
- To identify new biomarkers and therapeutic targets by focusing on these patients' groups

Our preliminary results

- A high prevalence of MASLD and MetS in severe bacterial infections and COVID-19^[1]
- Association of MASLD with COVID-19 severity and outcomes^[2]
 - Distinct cytokine and chemokine responses in patients with MASLD and COVID-19 (e.g. IL-6, IL-8, IL-10, IFN and TGF- β 1)^[3-5]
- Association of MASLD with the development and recurrence of *Cl.difficile* infection^[6,7]
- MASLD as a risk factor for severe community-acquired pneumonia course and outcomes^[8]
- MASLD as an independent risk factor for development of acute kidney injury and ARDS in patients with sepsis^[9]
- MASLD is associated with sepsis mortality independently to other components of MetS^[9]
 - Distinct cytokine and chemokine profiles and kinetics during sepsis (e.g. Th-17 responses, CXCL19, TGF- β 1)
 - New biomarkers of sepsis (semaphorins, SEMA-3A, -3C, -3F, -5A and -7A)^[10]

Who are we



KLINIKA ZA INFEKTIVNE
BOLESTI UNIVERSITY HOSPITAL
FOR INFECTIOUS DISEASES
DR. FRAN MIHALJEVIĆ



University Hospital for Infectious Diseases "Dr Fran Mihaljević", Zagreb, Croatia

- the leading institution for diagnostics and treatment of infectious disease in Croatia
 - ≈ 7,000 inpatients
 - ≈ 65,000 outpatients per year
 - 232 beds (172 adults, 60 for children)
 - 12 clinical departments, 6 diagnostic departments
- Strong expertise and capacity in clinical and immunological research
- Several ongoing international projects

What type of partners are we looking for?

- Interested in infectious diseases research
(virology, pathogenesis, clinical trials, diagnostics, biomarkers, treatment, etc.)
- Centers with the experience in the treatment of patients with bacterial sepsis and/or MetS, liver diseases, MASLD
- Experience with –omics, bioinformatics, immune responses research

How to contact us

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