Welcome to the MSB Seminar, July 22, 2022 (Online)

Time: 15:00-16.30 (Bangkok, Thailand)
Speaker: Prof. Adil Mardinoglu, PhD
Title: The use of systems biology in treatment of liver diseases
CV: https://sysmedicine.com/
Zoom link: https://us02web.zoom.us/j/86049823328...

The use of systems biology in treatment of liver diseases

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To develop novel strategies for prevention and treatment as well as to gain detailed insights about the underlying molecular mechanisms of liver diseases, it is vital to study the biological functions of liver and its interactions with other tissues and gut microbiota. Biological networks can provide a scaffold for studying biological pathways operating in the liver in connection with disease development in a systematic manner. In my presentation, I will present our recent work where biological networks have been employed to identify the reprogramming in liver physiology in response to NASH/NAFLD. I will further discuss how this mechanistic modelling approach can contribute to the discovery of biomarkers and identification of drug targets which may lead to design of targeted and effective personalized medicine.

Key points of my presentation
• Omics technologies are used in detailed characterization of human liver tissue in health and disease states.
• Biological network models are functional tools for exploring and integration of multiomics data.
• Systems biology uses a holistic and integrative approach for comprehensive analysis of the biological functions in healthy and diseased states
• Systems Biology approaches have been successfully employed in hepatology to identify biomarkers and drug targets.
• These integrative tools can be used for simulation of liver tissue functions and its crosstalk with other tissues for prediction of therapeutic and side effects.
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