

ICB seminar series 2024/25

chairman: Prof. Dr. Kjell Jorner

OF MICROBES AND MENTAL MODELS: COUNTERINTUITIVE INFECTION PREVENTION IN HEALTHCARE

Prof. Dr. Hugo Sax

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Wednesday, 11/12/2024, 4 pm
ETH Hönggerberg, HCI J 7

Abstract: Healthcare-associated infections pose a significant risk for patients, visitors, and healthcare providers. This seminar will explore the intricate interplay between pathogens, human behaviour, and the environment that drives these risks. We will introduce infectious risks in healthcare, delving into the unseen microbial world and the role of the microbiome. The discussion will highlight how Human Factors Design can mitigate these risks by optimising workflows, environments, and decision-making. Contrasting 'the germ view' focused on pathogens against 'the human view' centred on behaviour will provide a framework for understanding systemic challenges. Counterintuitive insights, such as how strict hygiene rules can inadvertently increase risk, will challenge conventional thinking. By blending insights from microbiology, cognitive science, and design, we inspire to see infection prevention as a dynamic, multidisciplinary challenge shaped by the first principles systems thinking.

Bio: Prof Hugo Sax, MD, is an Infectious Disease and Infection Prevention expert with over 20 years of clinical and academic experience, currently at Bern University Hospital, University of Bern, and founder of SaxHealthDesign.com. A former president and board member of Swissnoso, he also contributed to the WHO's First Global Patient Safety Challenge. His work bridges human factors, systems thinking, and infection prevention, integrating epidemiology, qualitative research, and data science. Co-creator of the globally adopted "My Five Moments for Hand Hygiene," he has published over 100 original papers (<https://orcid.org/0000-0002-1532-2198>). He teaches infection prevention and human factors at UZH and ETH Zurich and draws on his experience as a private aerobatic pilot.