

Fast and sensitive testing of bacterial antibiotic susceptibility in patient material using Scattered Light Integrated Collector (SLIC)

Prof. Frank SCHILDBERG

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Time: 10:00 am — 12:00 pm (HKT)

Venue: B6619, Blue Zone, 6/F
Yeung Kin Man Academic Building



Abstract

Bacterial antibiotic resistance is a key challenge and constant battle in modern medicine. Current methods to identify infective microbes and define antibiotic susceptibilities are culture based and thus require two to ten days. This prolonged diagnostic delays targeted treatment and potentially impacts patient outcome. In an exploratory prospective study, we strived to establish a faster sensitive method to characterize antibiotic activity against bacterial growth in patient material, using the Scattered Light Integrated Collector (SLIC).

Biography

Prof. Frank Schildberg is Professor of Musculoskeletal Immunology and Head of the Research Unit at the Department of Orthopedics and Trauma Surgery at the University Hospital Bonn. He studied molecular biomedicine and after receiving his PhD from the University of Bonn in 2012, he transferred to Harvard Medical School for postdoctoral and junior group leader positions. Since July 2017, he has been Research Director at the Department of Orthopedics and Trauma Surgery at the University Hospital Bonn, before taking up a professorship at the same department in November 2023. The main focus of his research is in the field of osteo- and trauma immunology. The overall goal is to understand the cellular and molecular mechanisms of musculoskeletal immune responses in order to develop novel immunology-centered diagnostic and therapeutic options to better predict and treat musculoskeletal pathologies. Specifically, current studies are investigating immune responses in the context of implants and during bone homeostasis.