



Seminar/Talk

Seminar by Thomas Böttcher

Thomas Böttcher

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Host: Leonid Sazanov

This talk will feature our recent advances in the study of bacterial 2-alkyl-4(1H)-quinolones and their N-oxide derivatives. These compounds, produced by various bacterial species, serve a broad range of functions, from signaling to antimicrobial activities. Beyond enhancing the mechanistic understanding of their biosynthesis and phylogeny, I will focus on their potential as novel scaffolds for highly specific, ultra-narrow-spectrum antibiotics. Our research demonstrates that NQNO, along with its synthetic derivatives, can disrupt the electron transport chain and subsequently destabilize a toxin-antitoxin system of the human-specific pathogen *Neisseria gonorrhoeae*. This system is present in pathogenic *Neisseria gonorrhoeae* but absent in commensal strains, making our compounds highly selective in targeting the pathogen.

Thursday, December 11, 2025 02:00pm - 03:00pm

Mondi Seminar Room 2, Central Building



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

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<https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.