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## **Stochastic nature of bacterial eradication using antibiotics**

Frequent antibiotic failure is a serious threat to public health. To cope with this threat, it is critical that we better understand population dynamics of bacteria exposed to antibiotics. In this talk, I will present our recent laboratory studies showing stochastic nature of bacterial eradication using antibiotics. We found that bactericidal drugs induce population fluctuations, leading to stochastic population dynamics. Consequently, bacterial clearance does not follow a deterministic course but is highly probabilistic. These population fluctuations may be manipulated to facilitate bacterial eradication.

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University of Cologne

Institute for Biological Physics

Seminar Room 0.02, Ground Floor

Hosted by

Tobias Bollenbach