

Studying gene regulation in bacterial pathogens at the single-cell level

Initiative: Momentum - Förderung für Erstberufene

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Laufzeit: 4 Jahre

Studying gene regulation in bacterial pathogens at the single-cell level In this Momentum project, the applicant will expand her work on RNA-based gene regulation of the bacterial pathogens *Helicobacter pylori* and *Campylobacter jejuni* towards single cell behavior to study cellular heterogeneity and variance in stress responses. This will be achieved by setting up microfluidic devices to grow bacteria under defined conditions and track individual cells with live-cell microscopy. Fluorescent reporter strains will be generated to monitor gene expression changes in real time during bacterial stress responses. This will allow for exploring so far understudied aspects of heterogeneity and kinetics of RNA-based gene regulation in bacterial pathogens in response to environmental changes and host signals.

Projektbeteiligte

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