Cologne Evolution Colloquium

CRC 1310 Predictability in Evolution

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Eco-evolutionary dynamics during Escherichia coli colonization of the mouse gut

Bacterial laboratory experiments where evolution is followed in real time have allowed us to test theoretical predictions on microbial adaptation and to unravel how pervasive the spread of beneficial mutations can be when they face novel environments. Much less is known about bacterial real time evolution in more natural environments, such as that comprising the gut microbiota. The pace and pattern of evolutionary change during the life of a health mammal is currently unknown. We have been following the emergence of new strains in commensal E. coli when it colonizes the gut of laboratory mice (invivo experimental evolution). These semi-controlled experiments haven revealed that rapid evolutionary change occurs, which is marked by strong effect mutations, evolution of mutator clones and high rates of horizontal gene transfer.

Thursday, November 7, 2019, 17:00
Biological Physics, Zülpicher Str. 77 (old building)
Seminar Room 215

Hosted by Michael Lässig