

# Cologne Evolution Colloquium

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MPI for Biology of Ageing

## **Mitochondria-Microbe conflict**

Mitochondria are often considered exploitable host targets during microbial infection. However, these organelles, essentially domesticated parasites, oxidize various carbon sources including fatty acids, and thus ostensibly compete with microbes. We have previously shown that during infection with the human parasite *Toxoplasma*, mitochondria fuse to enhance their fatty acid uptake. This response limits *Toxoplasma* access to a key host resource and restricts its proliferation. Here, we define a potential mechanism by which host mitochondria compete with *Toxoplasma* for host lipids. In addition, we investigate whether MAF1, a secreted parasite protein that tethers host mitochondria, provides certain strains of *Toxoplasma* a counter strategy to mitochondrial metabolic defense.

Wednesday, December 11, 2019, 17:00  
Institute for Biological Physics, Zülpicher Str. 77a  
Seminar Room 0.02, Ground Floor

Hosted by Michael Lässig