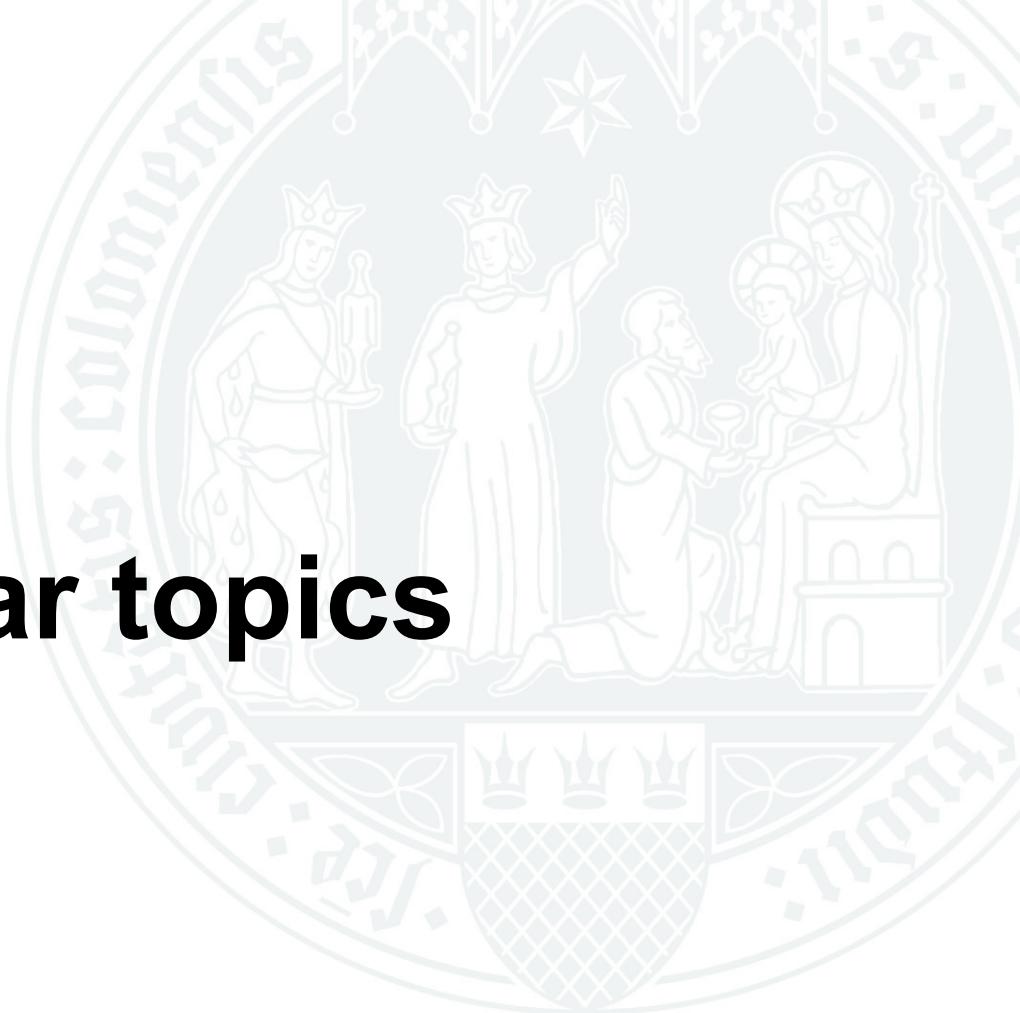
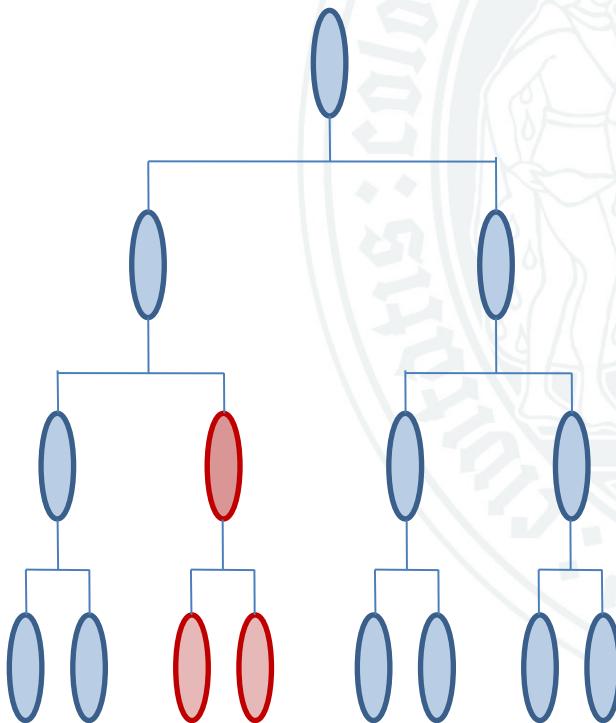


# Seminar topics



# Analysis of mutations during evolution of drug resistance

Luria-Delbrück experiment for determining the mutation rate

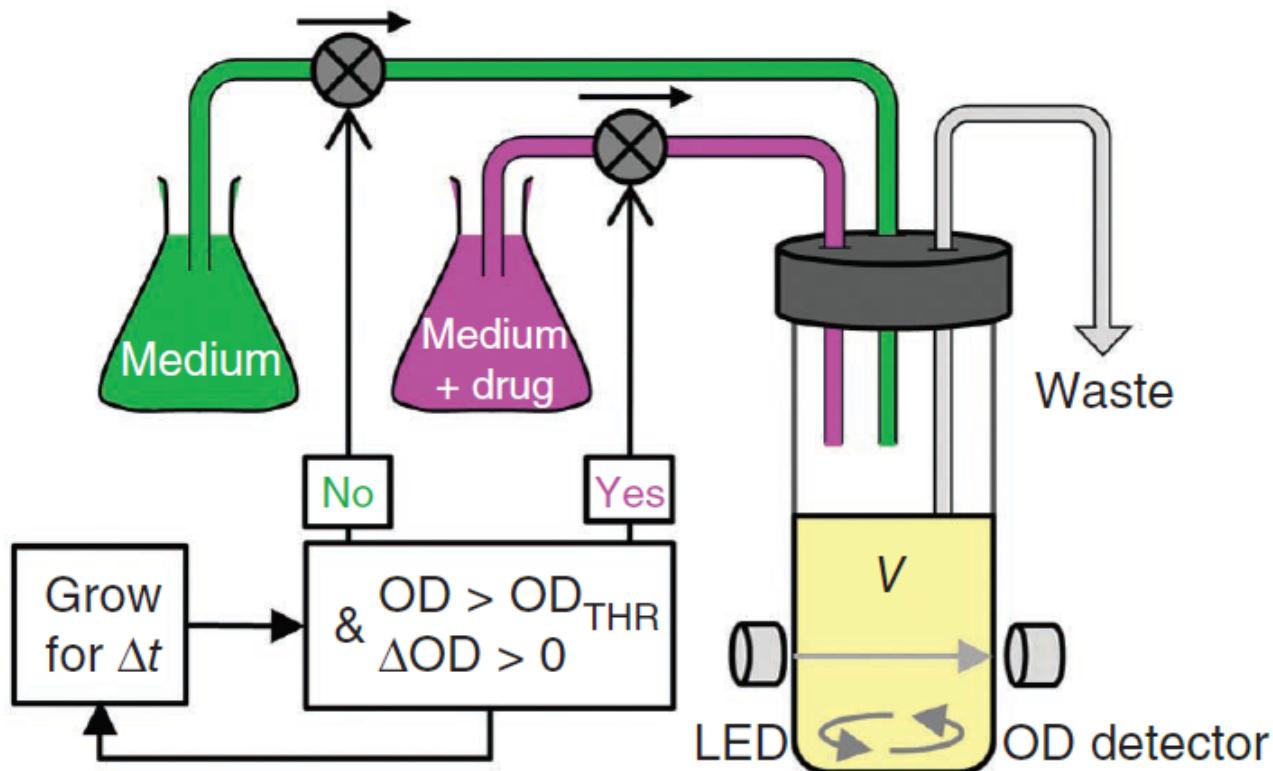


*Phillips et al, Phys. Biol. of the Cell, 2nd edition, Garland Publishing  
Lea, D.E. & Coulson, C.A., J. Genetics 1949, 49(3), 264  
Kessler, Levine, PNAS 2013, 110, 11682-11687*



# Analysis of mutations during evolution of drug resistance

orbidostat: setup for systematic characterization of the evolution of drug-resistance



Literature:

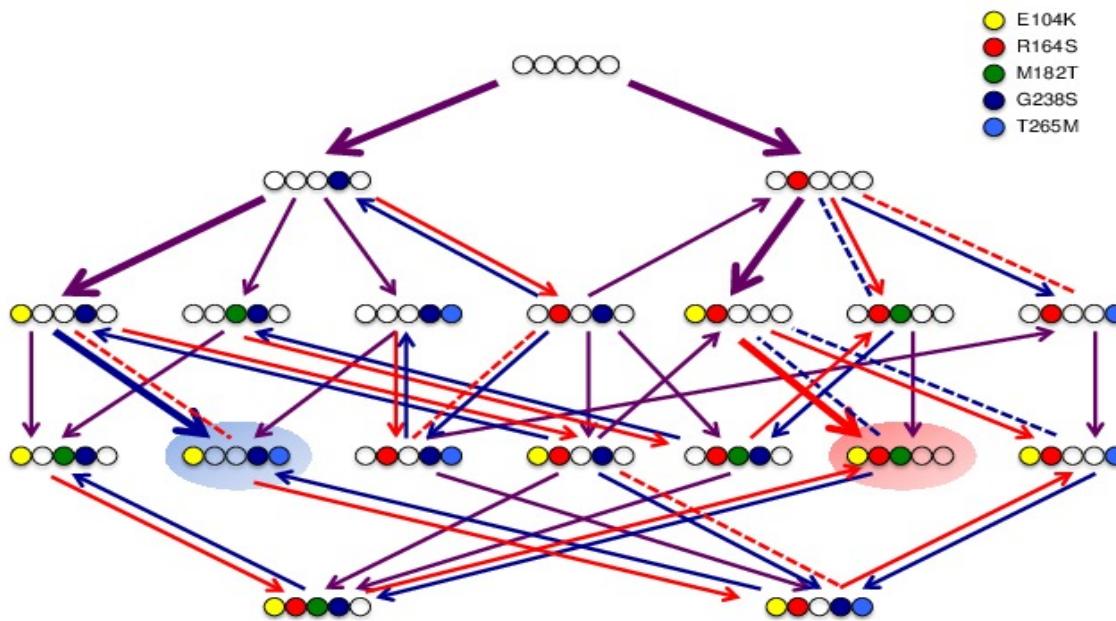
Toprak et al, Nat. Genetics 2012, 44(1), 101

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# Antibiotic cycling and adaptive landscapes

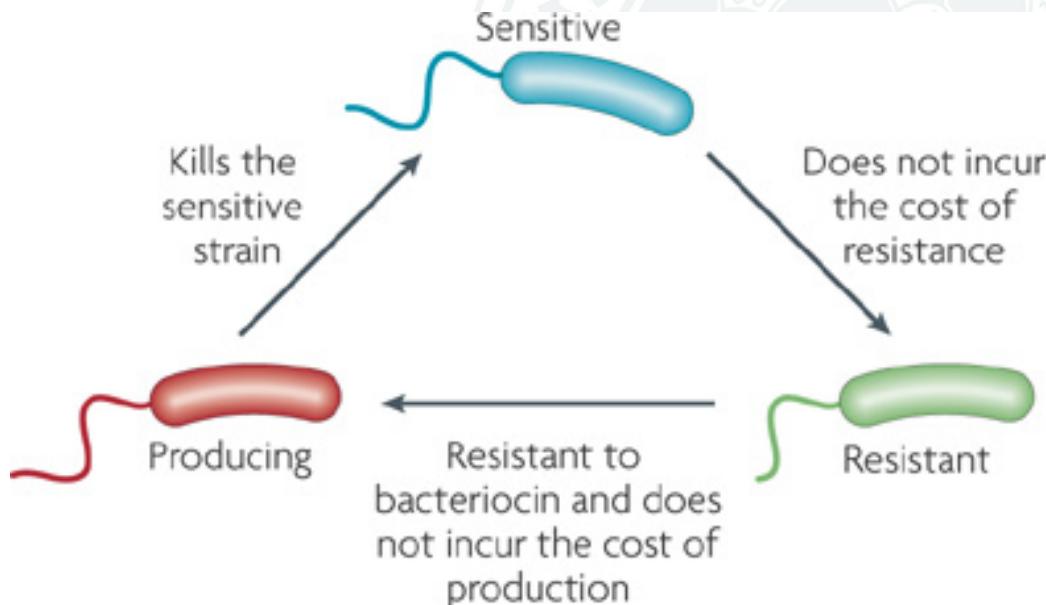


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# Game theoretical description of drug resistance



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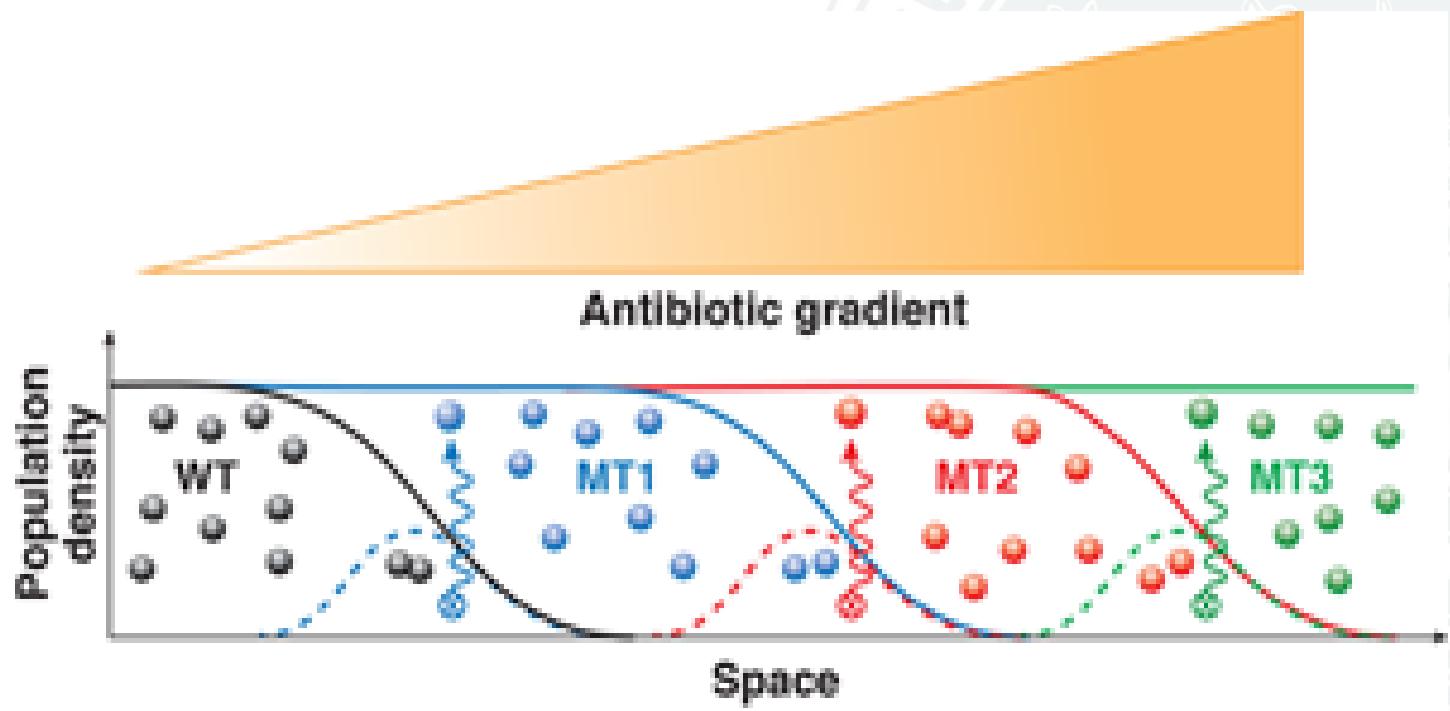
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# Drug resistance emerging in a drug gradient



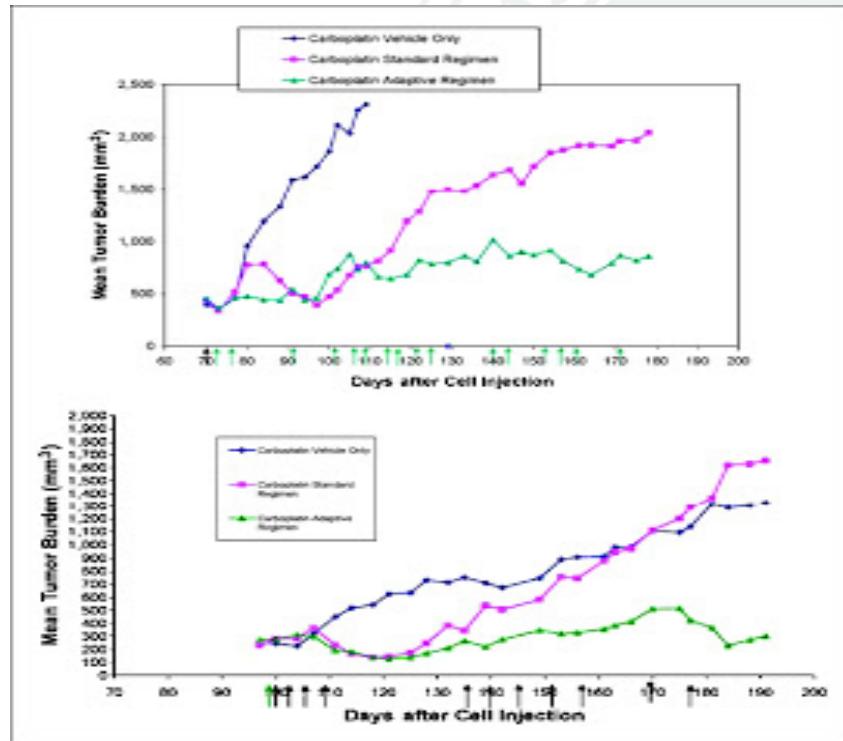
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# Optimal drug scheduling in cancer



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