

Target audience

- PhD students
- Bachelor or Master students
- MD students

who are working with related topics or are interested in microbial resistances or who would like a refresher course in bacteriology.

Lectures

1. Membrane and Envelope
2. Bacterial Chromosome
3. Transcription and Gene Regulation
4. Translation and Ribosomes
5. Non-ribosomal Peptides and Polyketides
6. Pili, Flagella and Secretion
7. Main Metabolic Pathways



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GEFÖRDERT VOM



Basics in Bacteriology

in context of
antibiotic resistance

Dr. Oliwia Makarewicz

Lecture series

**5 - 6 March 2020
from 9:00 to 12:30**

Seminar room 10,
Research and Institute
Building (FUI), House 2

Basics in Bacteriology in context of antibiotic resistance

Antibiotic resistance can have different causes. Rarely is resistance to a particular antibiotic due to only one mechanism. Often these are based on different mechanisms (multimodal), which simultaneously determine the phenotype. On the other hand, there are general mechanisms that cause resistance to different agents. In order to better understand the development of resistance, one must first understand the processes in the bacterial cell.

The lecture series is intended to introduce the participants to the basic processes in bacteria in order to deepen their understanding of the mechanisms behind antibiotic resistance or tolerance.

The individual lectures each deal with a specific compartment or process in the cell, the antibiotics that are addressing this compartment/process and the associated resistance mechanisms.

The lecture series is aimed at PhD students or Bachelor/Master students who are working with related topics or are interested in microbial resistances or who would like a refresher course in bacteriology.

The lecture series will be organized in a two-day workshop (lectures 1 to 3 at day 1, lectures 4-7 at day 2). Each lecture will last between 45 - 60 minutes and will provide an opportunity for questions and discussion.

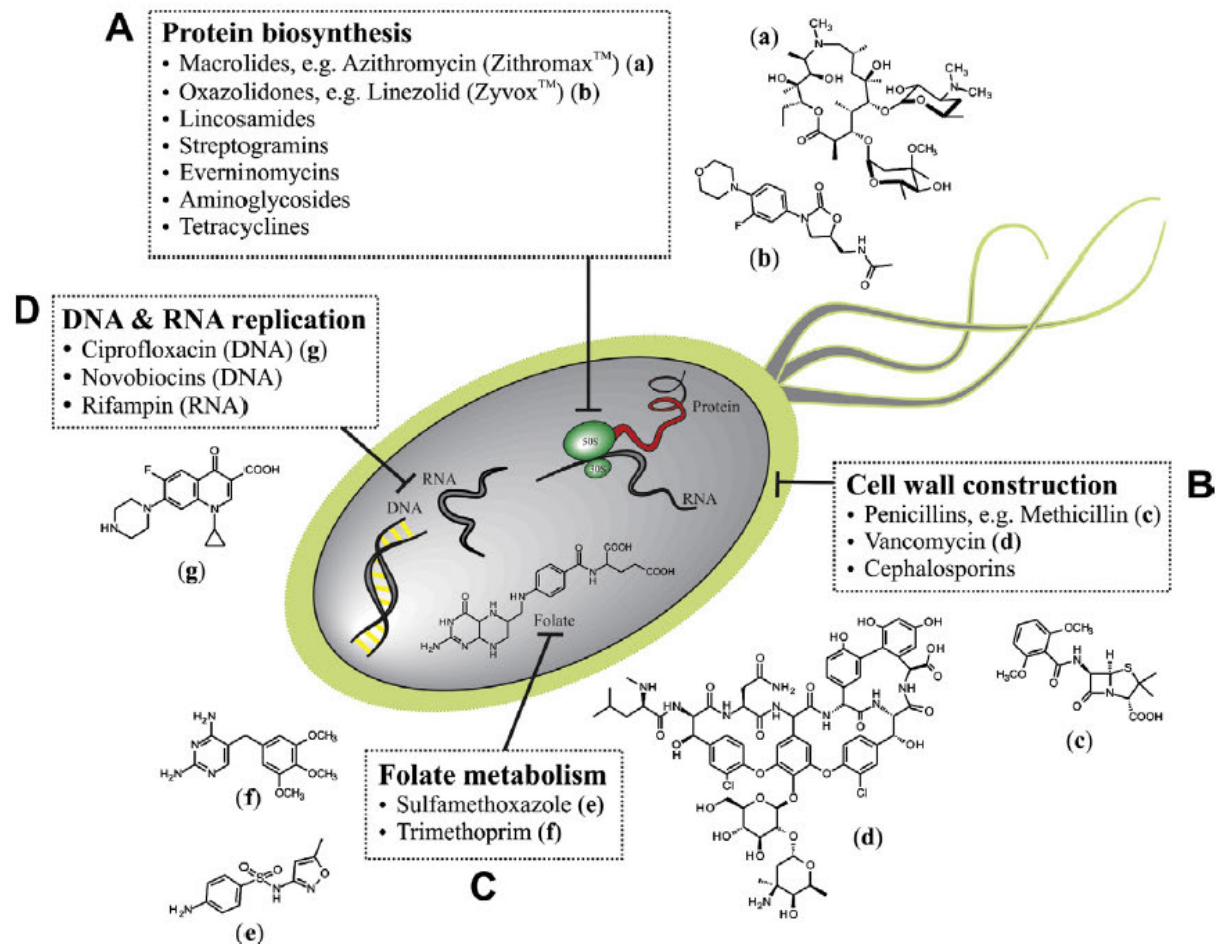


Image source: Henderson and Lee, Current Opinion in Solid State and Materials Science 17 (2013) 175–192