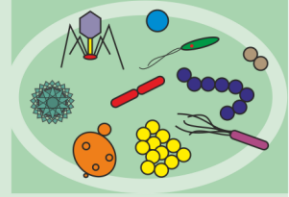


Cytology and morphology of bacteria

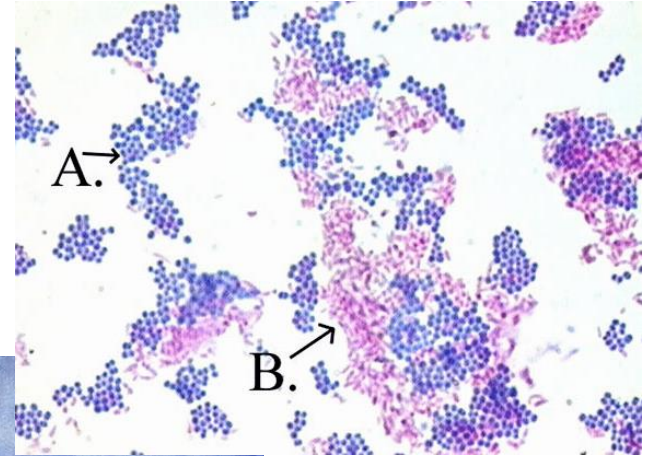
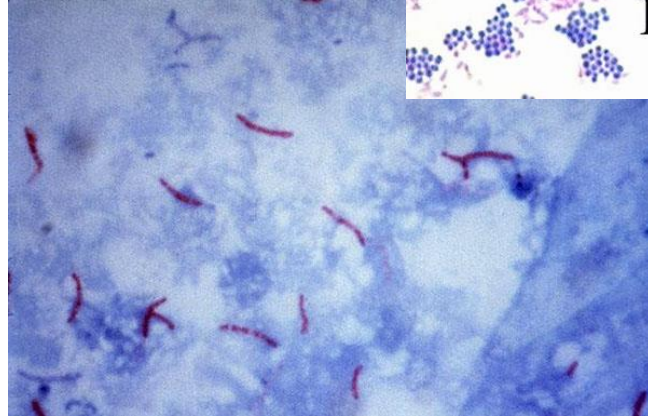
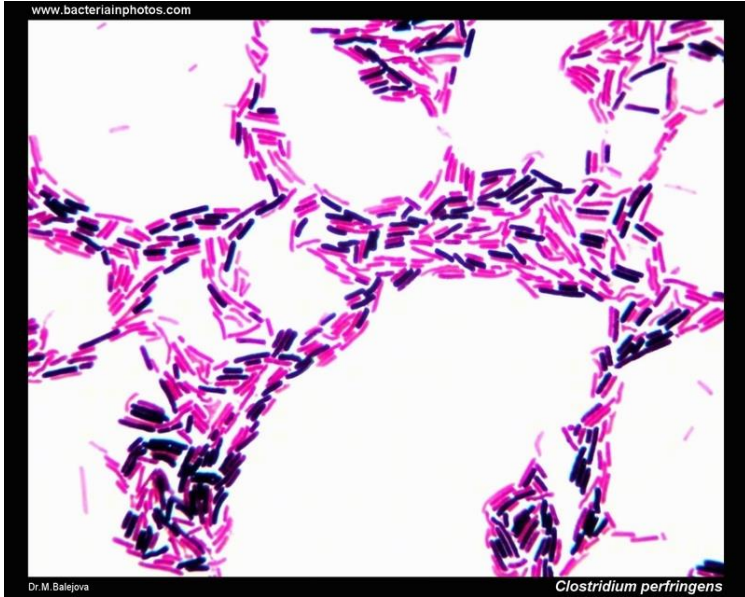
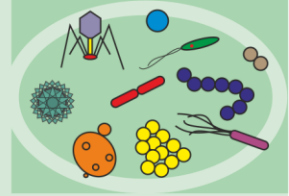


4. practice

Acid-fast staining

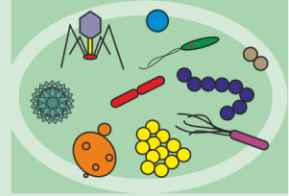
Fidrich (2018)

Gramvariable or gramlabile bacteria

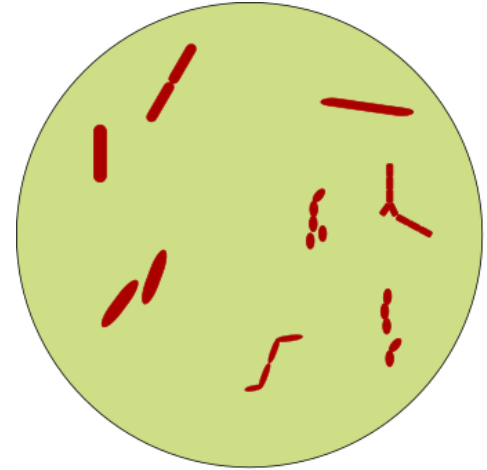


Source: microbiologyinfo.com

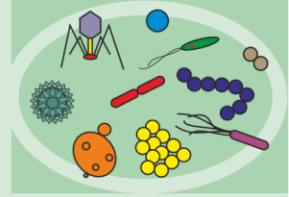
Acid-fast (Ziehl-Neelsen) stain



1. Prepare flame-fixed preparation
2. Cover it by concentrated carbolfuchsin, warm it to evaporation (if it is necessary, supply the dye)
 - Warm the preparation for about 5 minutes (**do not boil**)
3. Wash by acidic alcohol 2 times for maximum 15 seconds
4. Stain by malachine green or methylene blue for 30 seconds
5. Rinse with water and observe at magnification 1000x



What to observe ?



- 2 acid-fast staining
 - 1x acid-fast
 - 1x acid-fast + G+/G-

2 or 5 day cultures:

Mycobacterium phlei (G 0)

Nocardia carnea (G 0 „G+“)

Rhodococcus erythropolis (G +, „G 0“)

Corynebacterium glutamicum (G +)

Acinetobacter haemolyticus (G -)