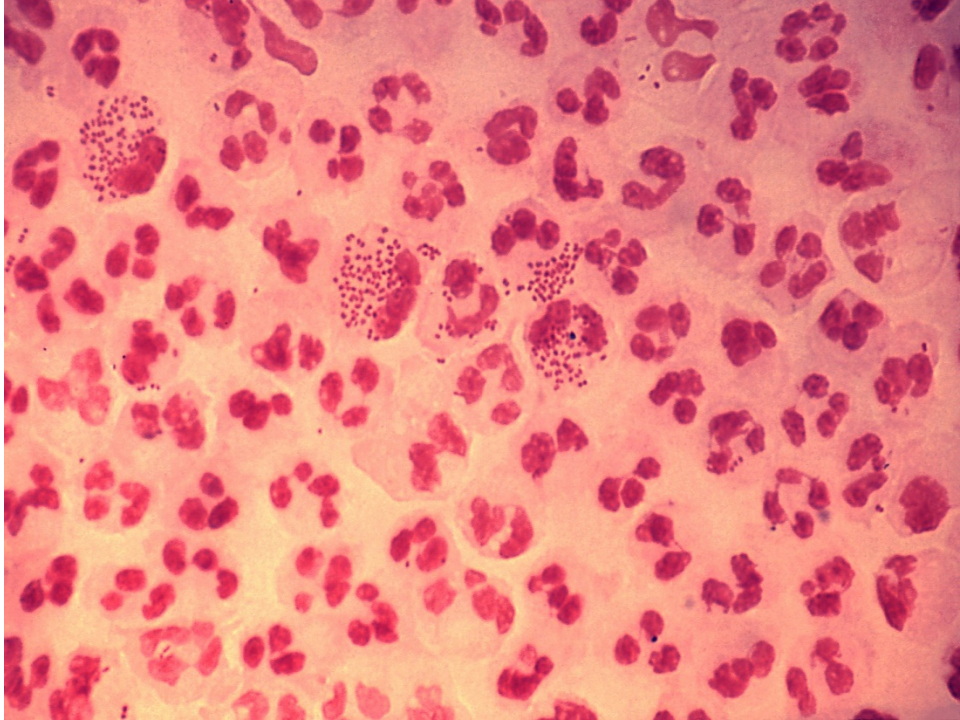
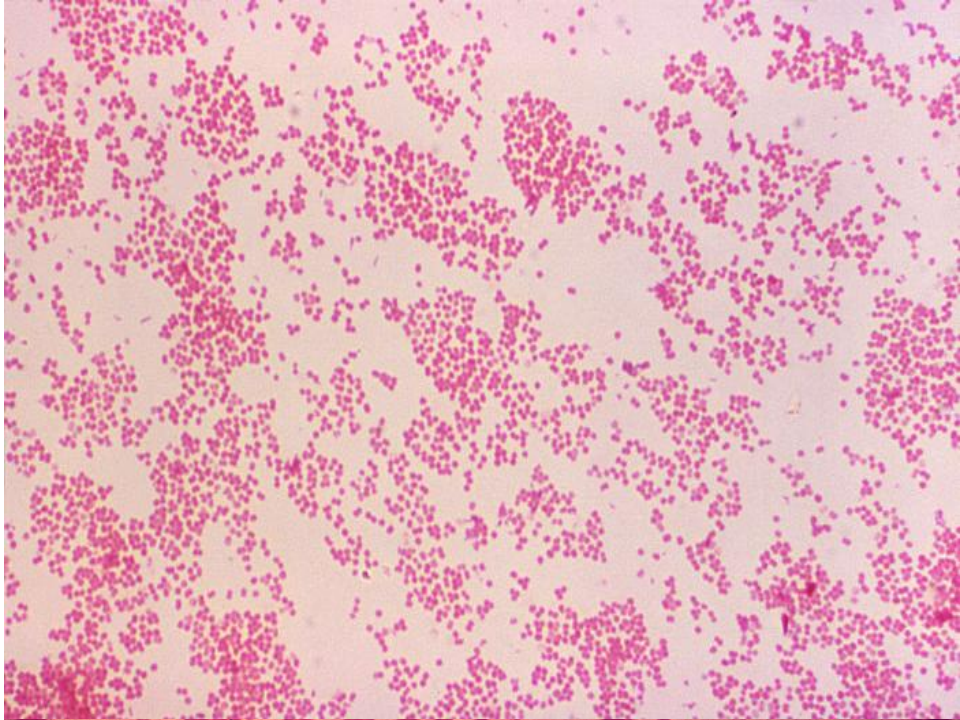


Family Neisseriaceae

- Gram-negative cocci
- Residents of mucous membranes of warm-blooded animals
- Genera include *Neisseria*, *Branhamella*, *Moraxella*
- 2 primary human pathogens:
 - *Neisseria gonorrhoeae*
 - *Neisseria meningitides*

Genus *Neisseria*

- Gram-negative, bean-shaped, diplococci
- None develop flagella or spores
- Capsules on pathogens
- Pili
- Strict parasites, do not survive long outside of the host
- Aerobic or microaerophilic
- Oxidative metabolism



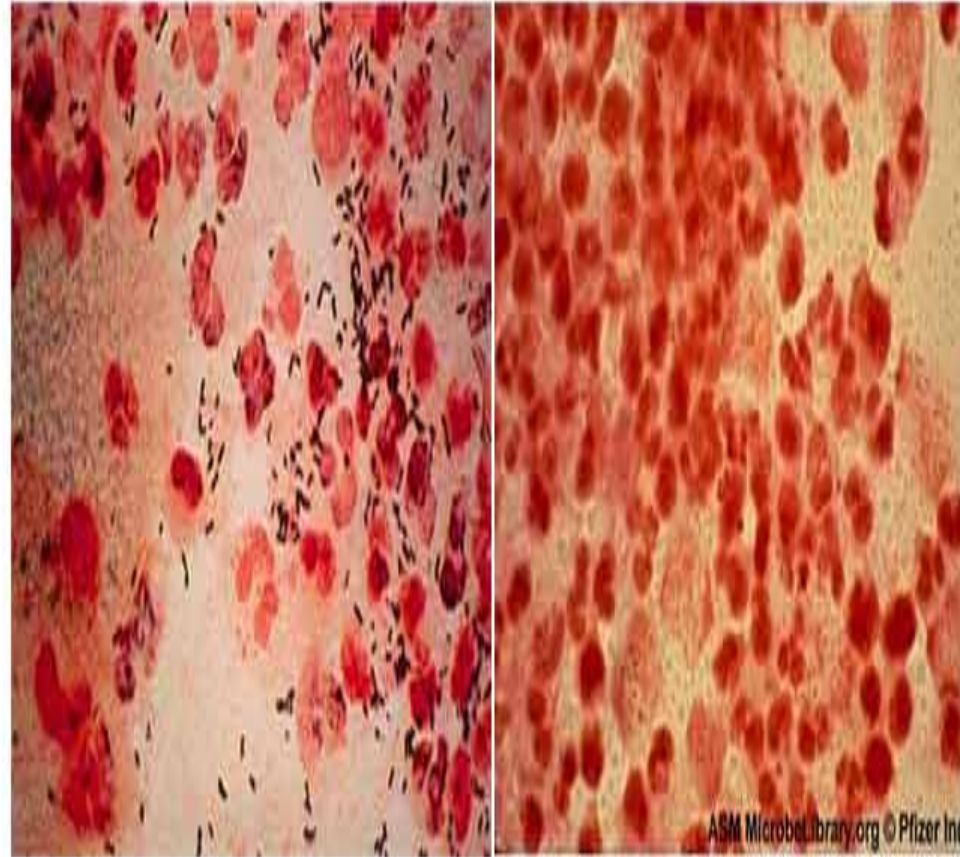
- Produce catalase and cytochrome oxidase
- Pathogenic species require enriched complex media and CO₂.

Neisseria Meningitidis: The Meningococcus

Virulence factors:

- Capsule
 - Adhesive fimbriae
 - IgA protease
 - Endotoxin
-
- 12 strains; serotypes A, B, C cause most cases.

Neisseria gonorrhoeae VS *Neisseria meningitidis*

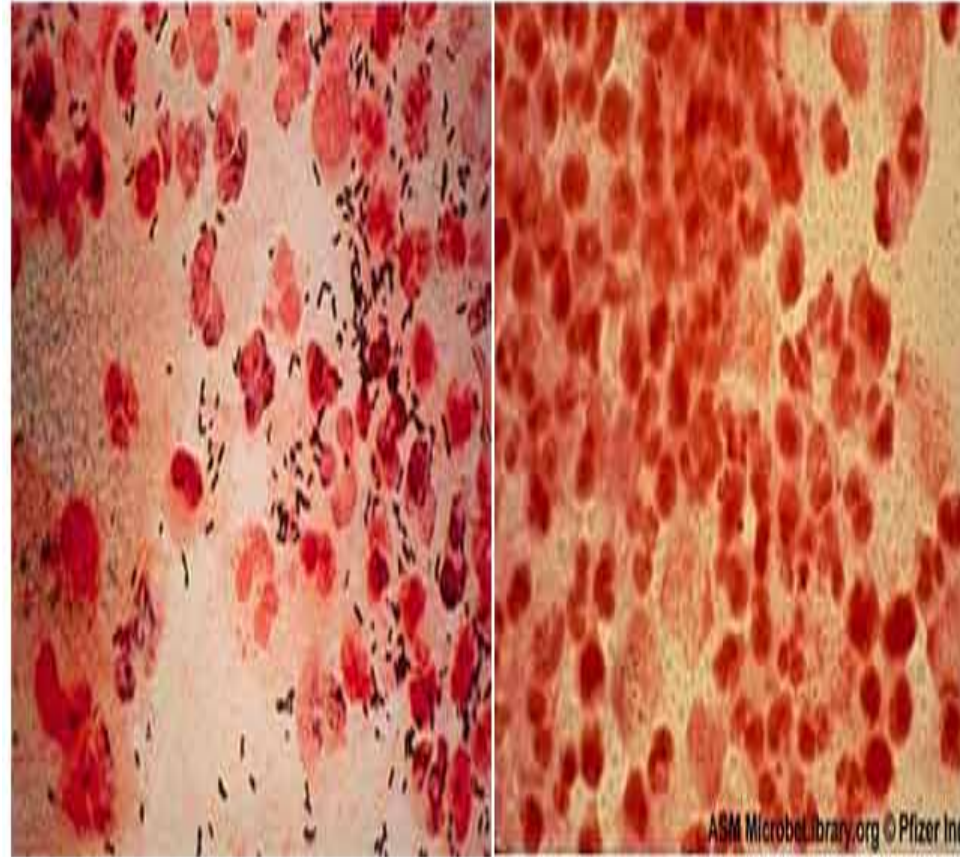


Diseases Associated with Neisseria meningitidis

➤ Following dissemination of virulent organisms from the nasopharynx:

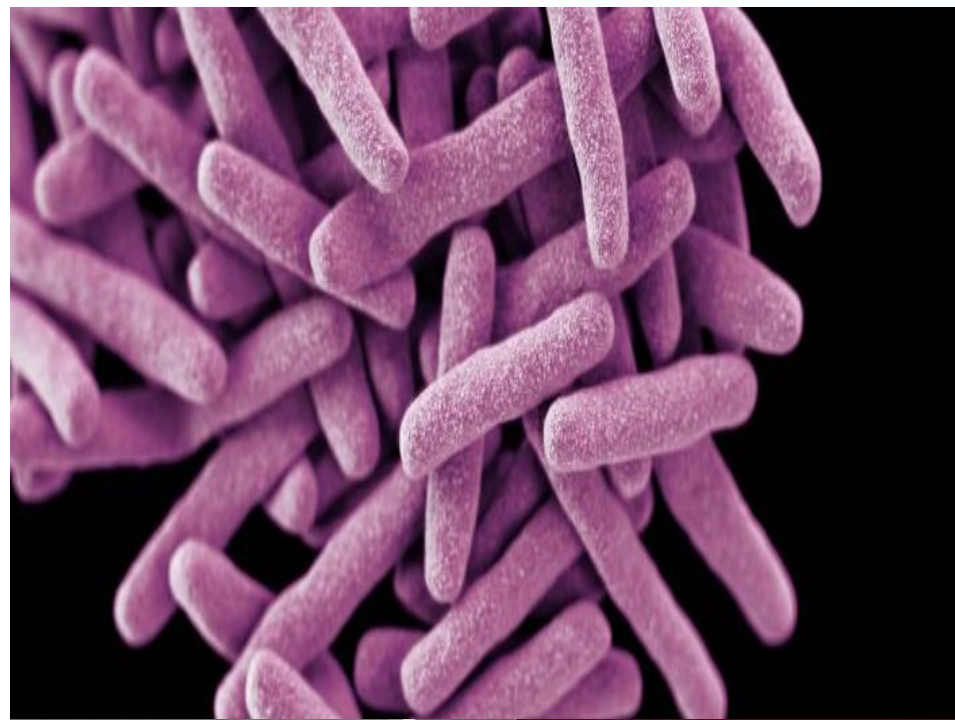
Meningitis , Septicemia (meningococcemia) with or without meningitis , Meningoencephalitis , Pneumonia , Arthritis, Urethritis .

Neisseria gonorrhoeae VS *Neisseria meningitidis*



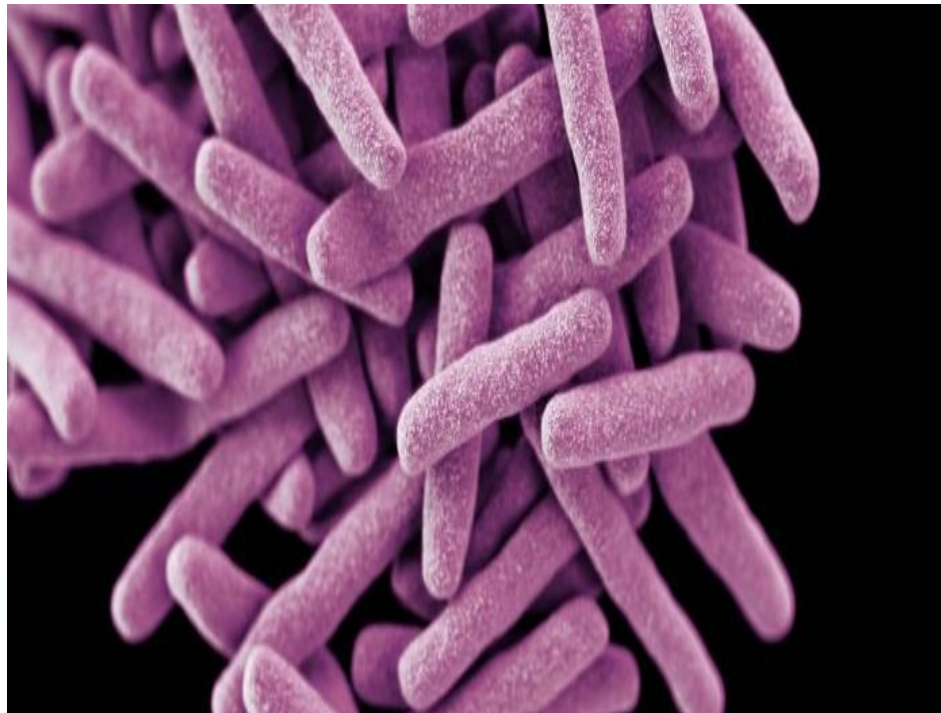
Mycobacterium :

Cell wall rich on lipids = hydrophobic surface = resistant to disinfectants = not stainable. If stained - heating - they resist decolorisation by strong acids = acideresistant, acid fast



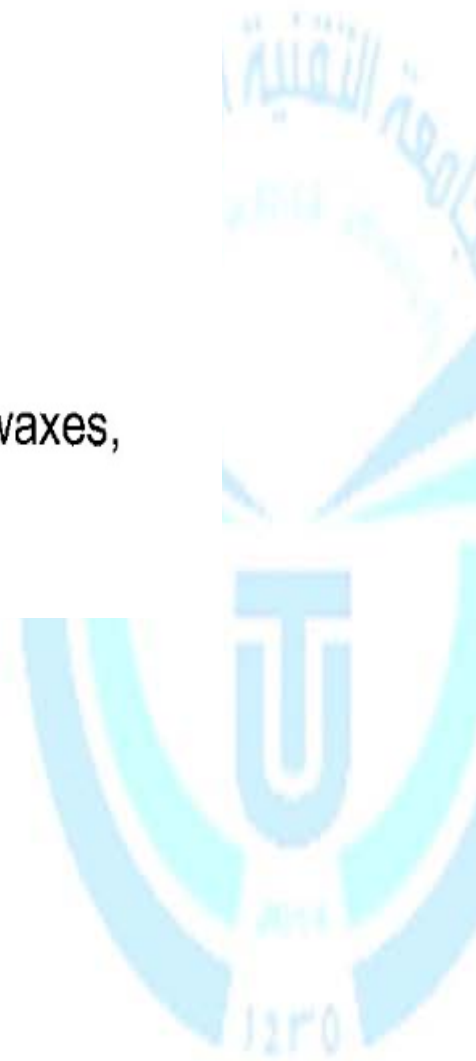
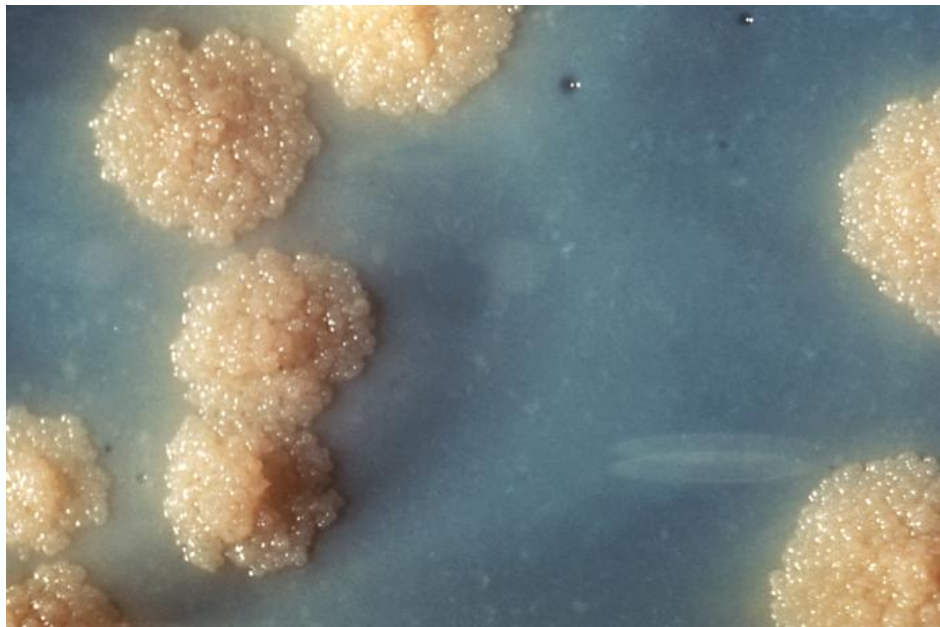
the characteristics

Gram + , Bacillus , Aerobic , Nonmotile , Acid-Fast Staining , Mycolic Acid in Cell Wall , Complex Cell Wall , Intracellular Parasite , Diseases From Immune Response, Slow growth .



Mycobacterium tuberculosis

- long, slender, straight or curved, acid fast bacilli
- slow growers, obligate aerobes, intracellular bacterium
- structure composed of high molecular weight acidic waxes, mycolic acid, cord factor



type of *Mycobacterium tuberculosis* :

- human type
- bovine type
- avium type
- murine type
- piscine type

Diseases :- Tuberculosis

Mycobacterium lepra

It is similar to M tuberculosis but resistant to culture. It is an obligate intracellular microbe that multiplies slowly.



Thank You

Questions?

Comments and opinions would be appreciated.

