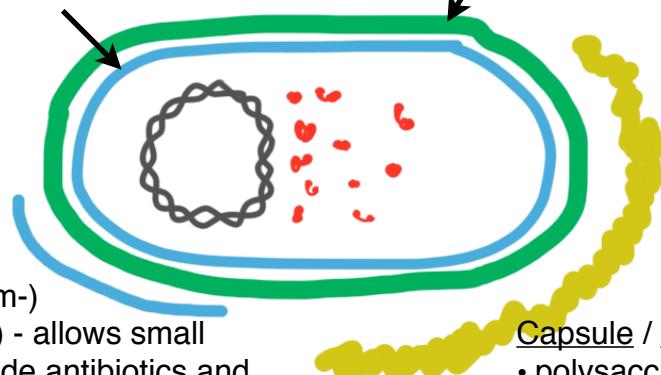


### Cytoplasmic membrane:

- active transport of ions and nutrients
- synthesis of lipids, peptidoglycan, LPS, capsular polysaccharides
- protein secretion
- ETC
- flagella, chemotaxis



### Cell wall:

- peptidoglycan, made by PBPs
  - rigidity, prevents osmotic lysis
- Cell wall carbohydrates  
--> Lancefield groups

*S. pneumoniae*  
*H. influenzae*  
*N. meningitidis*

### Outer membrane (Gram-)

- osmoregulation (filter) - allows small molecules, may exclude antibiotics and enzymes
- LPS, porins, virulence factors (proteins)
  - antigenicity
  - classification

O antigen varying polysaccharide sequence and antigenicity => classification

eg *Salmonella choleraesuis*

lipid A endotoxin --> Gram- endotoxic shock (during septicaemia)

- ### Capsule / Slime layer / Biofilm:
- polysaccharide
    - anti-phagocytosis
    - adherence to host
    - antigenic => serotyping, vaccines

- Envelope = cytoplasmic membrane + cell wall + outer membrane

Preview from Notesale.co.uk  
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