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# Pneumococcus

Genomics project

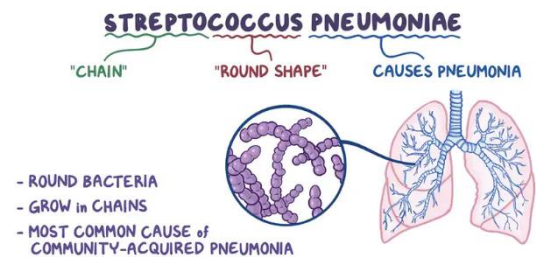


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## Project Abstract:

We found that *Streptococcus pneumoniae* is a bacteria that is commonly found in the nose and throat, can sometimes cause severe illness in children, the elderly and other people with weakened immune systems and it is the most common cause of middle ear infections, sepsis (blood infection) in children and pneumonia in immunocompromised individuals and the elderly, it can also cause meningitis (inflammation of the coverings of the brain and spinal cord) or sinus infections.



Thus, we are annotating an assembled sequence (obtained from NCBI) of these bacteria to identify protein encoding segments (called open reading frame) and compare it with all sequences of the same organism to know the similarity percent between them and the real name of the proteins they make up.

## Project Objectives:

- **Search for open reading frames (ORFs) in the DNA sequence of *Streptococcus pneumoniae* and find potential protein encoding segments using ORFfinder tool.**
- **Compare this ORFs with all sequences of the same organism to know which proteins this ORFs will make.**

## Our Tools:

- **ORFfinder**  
used to search for open reading frames (ORFs) in the DNA sequence you enter and return the range of each ORF, along with its protein translation.
- **Blast:** compares nucleotide or protein sequences to sequence databases and calculates the statistical significance.