Name: ABC transporters

Function: ATP-Binding Cassette transporter family is really important on bacterial physiology. They can transport a lot of different metabolites, ions, etc. Amy L. Davidson *et al (2008)* say that ABC system can be divided into three main functional categories: importers, exporters and translation of mRNA or DNA repair.

This protein family, in bacterial system, is clearly correlated with exportation of virulence factors. In addition this family is involved in the regulation of several physiological processes.

More information about ABC system can be finding on CCD using the number 119394.

Source: This type of proteins was highly described in another organisms because is one of the most important type of transporters.

Based on the transporter protein site (http://www.membranetransport.org/) 87% of protein transporters in *Treponema pallidum* are from ABC family.

We analysed the information on CDD and read the articles about ATP-Binding Cassete (ABC) transporters to understand the importance of this proteins in *T. pallidum*.

Articles:

• Davidson, A. L., Dassa, E., Orelle, C., & Chen, J. (2008). Structure, function, and evolution of bacterial ATP-binding cassette systems. *Microbiology and Molecular Biology Reviews*, 72(2), 317-364.