S27-3 H^+-transporting ATP synthases: insights into how their electrochemically driven motor serve as a drug target

◯Masatomo MAEDA[1]

[1]Iwate Medical University, School of Pharmacy

ATP synthases, widely distributed in bacteria, eukaryotic mitochondria and chloroplasts, are highly conserved multisubunit complexes. Although the conserved acidic residue in the transmembrane helix of the c subunit functions in H+ transport, the surrounding residues differ among species. There is further divergence in the number of c subunits that form the ring structure. Recently, it was also suggested that certain chemicals recognize the a and c subunits of pathogenic bacteria. In this report, I will focus on various bacterial c subunits, and discuss the possibility of developing specific inhibitors that target c subunit-ring as well as the a subunit.