

Biophysical approaches to assess transport properties of β -barrel channels

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β -barrel channels are wide pores that allow the passage of different types of ions, water and small hydrophilic molecules. Electrophysiology has been proved as the perfect tool to evaluate the functional properties of these systems, characterized by their multiionic transport. In particular, in this presentation I will discuss how planar bilayer electrophysiology at the single-channel level in combination with different theoretical and experimental approaches has a great potential to unveil the transport mechanisms of protein channels, from current and selectivity to thermodynamics.