Interactions between biological membranes in the aqueous environment

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Biological membranes in tissues and cells not only expose a huge surface area to their aqueous surrounding, but are often also densely packed, so that their surfaces mutually interact. The characteristics of membrane-membrane interactions depend on the molecular composition of the membrane surfaces and are of great importance for essential biological processes. We review several important contributions to the interaction between biological membranes and present experimental and simulation approaches to investigate the physical mechanisms that govern the interaction characteristics.