

Quiz 1 Material

Lipids & Membranes; Permeability & Transport; Channels / Membrane Potential; Receptors as Channels; GPCRs; RTKs; Phosphoinositides (PIPs)

Lipid Bilayer Properties

- spontaneous formation
- asymmetry
- membrane fluidity

Fluid Mosaic Model

- Predictions:
 - lipid is in bilayer form
 - integral & peripheral proteins are associated w/ membrane
 - lipid & protein are free to diffuse translationally & rotationally
- Evidence:
 - osmotic change: cells shrink/swell
 - electron microscopy
 - x-ray diffraction
 - FRAP
 - asymmetry of lipids & protein
- Modifications:
 - some lipids do not diffuse freely & are instead restricted by cell junctions or interactions w/ cytoskeletal filaments on cytoplasmic side of membrane