Phospholipids and Glycolipids are made of fats. They are amphipathic compounds which are important in forming cell membrane Taylor (1997). The Phospholipids provides the basic structure of cell membrane, whereas glycolipids act as cell-cell recognition and receptor sites for chemical signals Taylor (1997). The roles of these molecules are to ensure the structure and stability of membranes Taylor (1997).

Introduction

In the early twentieth century scientists have come to believe that cells are surrounded by thin oil-like layer Loeb (1904). Hugo Fricke also determined that the Lipid Bilayer of the cell membrane was 3.3 nm thick Fricke (1925). However, later analysis shows that this assumption was incorrect, to mean that the cell membrane is a single molecular layer Dooren LJ, (1986). Gorter and Grendel drew correct conclusions that cell membrane is a lipid bi-layer Philip (1993). This theory was confirmed through the use of electron microscope in the late 1950's. Fats are formed by condensation reaction between fatty acid and alcohol Taylor (1997). A basic similarity of Phospholipids and Glycolypids is that they both lie in the cell membranes Taylor (1997). They are amphipathic compounds, where the phosphate group is pointing toward intra and extracellular water environment Lodish (2000). The hydrophobic fatty acid tails with the molecules interacts with water, and the other end does not Lodish (2000); as seen below.



They are derived from sphingosine instead of a form of **phospholipids** that derives from glycerol (**phospholipids** exist in both derivatives from glycerol and sphingomyelin platform). Another **difference** from**phospholipids** is that **glycolipids** contain a sugar unit (can be glucose or galactose) instead of a phosphate group.