Higher bioavailabilities can be obtained with more advanced delivery systems, especially by adding enhancers (Ozsoy et al., 2009) that modulate the permeability of the epithelium. Endogenous hormones such as LHRH and TRH have been shown to be absorbed nasally in animal and human (Morimoto et al., 1985).

Pulmonary administration is an attractive route of proteins and peptides than other alternative routes of administration. The lungs offer a large surface area for drug absorption, of approximately 80-140 m^2. Several formulations for pulmonary delivery are in various stages of development and various protease inhibitors, surfactants, lipids, liposomes, polymers and absorption enhancers have been tested for their efficacy in improving the systemic availability of protein and macromolecular drugs after pulmonary administration (Andrade et al., 2011).

The buccal mucosa represents a potentially important site for controlled delivery of macromolecular therapeutic agents, such as peptides and protein drugs with some unique advantages such as the avoidance of hepatic first-pass metabolism, acidity and protease activity encountered in the GIT. Another interesting advantage is its tolerance (in comparison with the nasal mucosa and skin) to potential sensitizers (Sudhakar et al., 2006).

The ocular route is the choice for the localized delivery of ophthalmologically active peptide and protein for the treatment of ocular disease. Some of the general approaches that have been found useful in enhancing the ocular absorption such as the use of nanoparticles, liposomes, gels, ocular inserts, or surfactants may also improve the ocular delivery of peptide-based pharmaceuticals (Lee et al., 1985).

During recent years various scientist have developed method for facilitating transdermal delivery of proteins. Chemical enhancers based on biphasic lipid system