



Lymphatic Targeting Technology™

Solural Pharma ApS

Lymphatic Targeting Technology™

- Many lipophilic drugs have difficult oral absorption due to low solubility and/or low permeability over the intestinal membrane. (BSC class II and IV drugs)
- Solural Pharma has developed a new formulation technology that utilizes the lymphatic absorption pathway for lipids. Lymphatic absorption from the upper GI tract by-passes CYP metabolism and P-gp efflux pumps in the GI membrane as well as first pass metabolism.
- Huge food-effect for lymphatic absorption has traditionally limited the usefulness of this path for drug absorption
- The Solural Pharma formulation system has the advantage of eliminating the severe food effect thus opening perspectives for using this absorption path for lipophilic drugs with difficult absorption characteristics
- Solural Pharma has filed a number of patent applications for new improved drug products based on this technology

Lymphatic Targeting Technology™

The water insoluble, but fat soluble, drug substance is formulated in a solution (Self Emulsifying Drug Delivery System) consisting of :

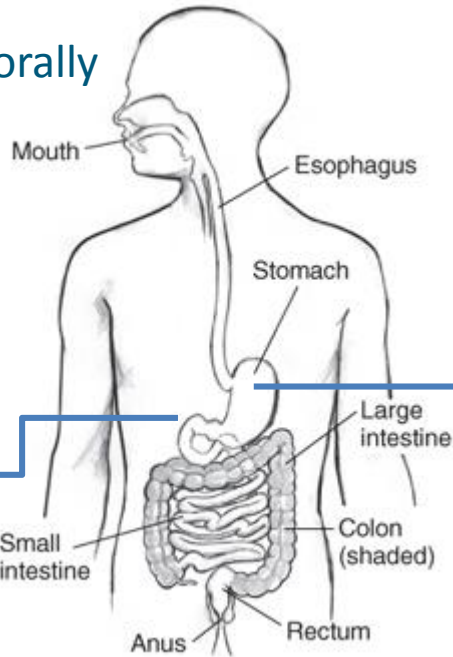
- Triglyceride long chain fat
 - ✓ Secure the triggering of the lymphatic absorption system in the small intestine and dissolve the drug substance
- Glycerol monoester of long chain fatty acid
 - ✓ Supports the lymphatic triggering and being a fat soluble surfactant, it secures a homogenous formulation
- Biological acceptable water-soluble surfactant
 - ✓ Secure the formulation will mix with water to a homogenous micro-emulsion

The formulation is a liquid, and can conveniently be dosed as hard or soft gelatin capsules



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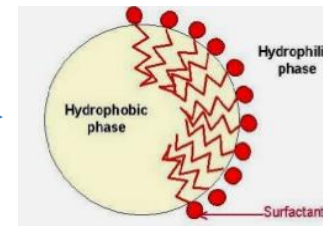
SEDDS administered orally



SEDDS emulsify spontaneously to produce a micro emulsion in the aqueous medium of stomach. The API is dissolved in the hydrophobic oil phase

Emulsified oil stimulates bile secretion

Oil droplets containing drug further emulsified by bile salts



Lipid droplets containing drug are metabolized/hydrolyzed by lipases and absorbed into lymphatic system "hiding" the lipophilic drug

SEDDS FORMULATION SPECIFIC COMPOSED TO TRIGGER OPTIMAL LYMPHATIC ABSORPTION

Lymphatic Targeting Technology™

A Clinically Validated Technology

