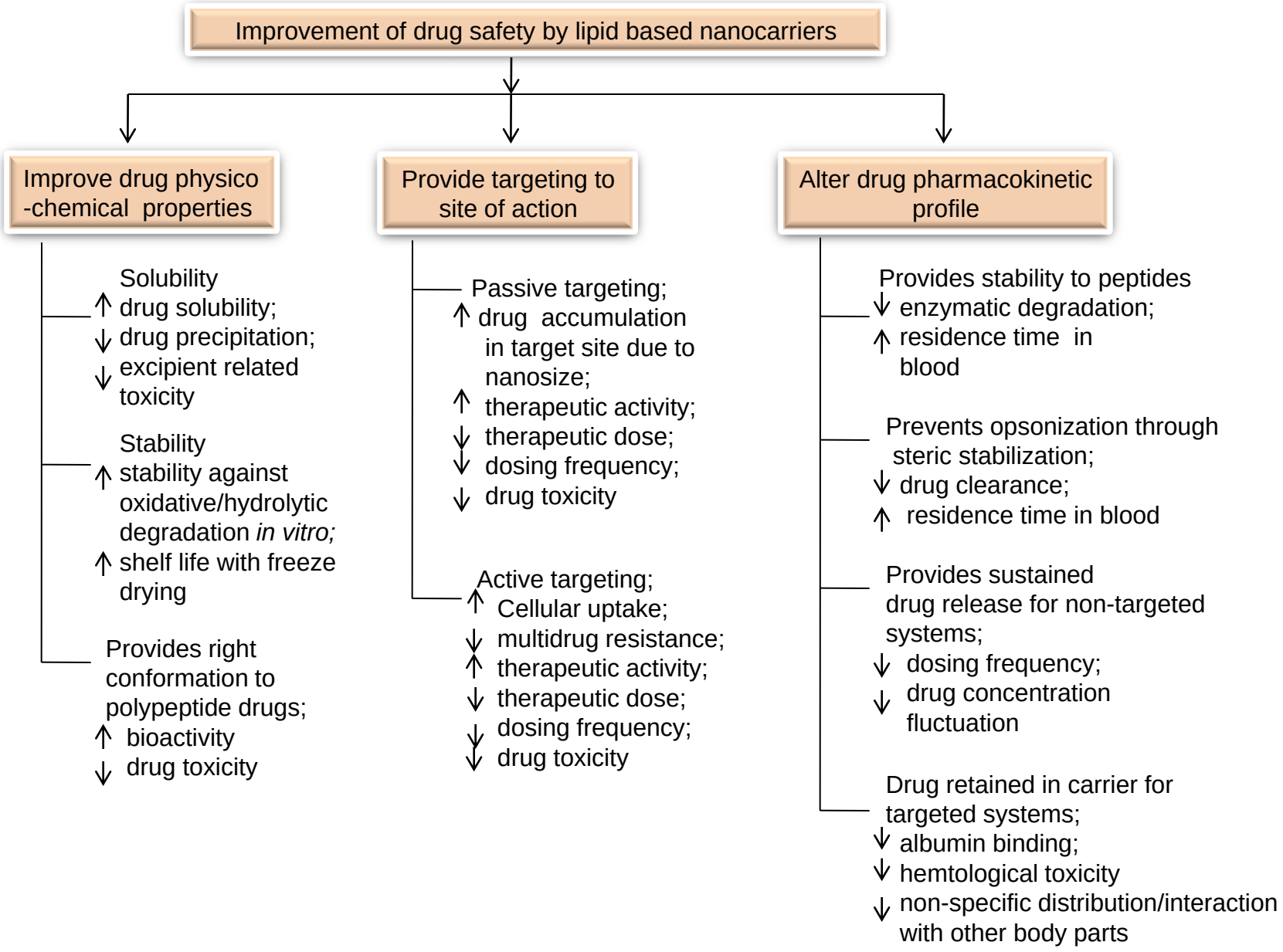
Improvement of drug safety by lipid based nanocarriers
Improve drug physico -chemical properties
Provide targeting to site of action
Alter drug pharmacokinetic profile
Solubility
↑ drug solubility;
↓ drug precipitation;
↓ excipient related toxicity
Stability
↑ stability against oxidative/hydrolytic degradation *in vitro;*
↑ shelf life with freeze drying
Provides right conformation to polypeptide drugs;
↑ bioactivity
↓ drug toxicity
Passive targeting;
↑ drug accumulation in target site due to nanosize;
↑ therapeutic activity;
↓ therapeutic dose;
↓ dosing frequency;
↓ drug toxicity
Active targeting;
↑ Cellular uptake;
↓ multidrug resistance;
↑ therapeutic activity;
↓ therapeutic dose;
↓ dosing frequency;
↓ drug toxicity
Provides stability to peptides
↓ enzymatic degradation;
↑ residence time in blood
Prevents opsonization through steric stabilization;
↓ drug clearance;
↑ residence time in blood
Provides sustained drug release for non-targeted systems;
↓ dosing frequency;
↓ drug concentration fluctuation
Drug retained in carrier for targeted systems;
↓ albumin binding;
↓ hemtological toxicity
↓ non-specific distribution/interaction with other body parts