# Development of novel liposome structures decorated with homing peptides for targeted drug delivery

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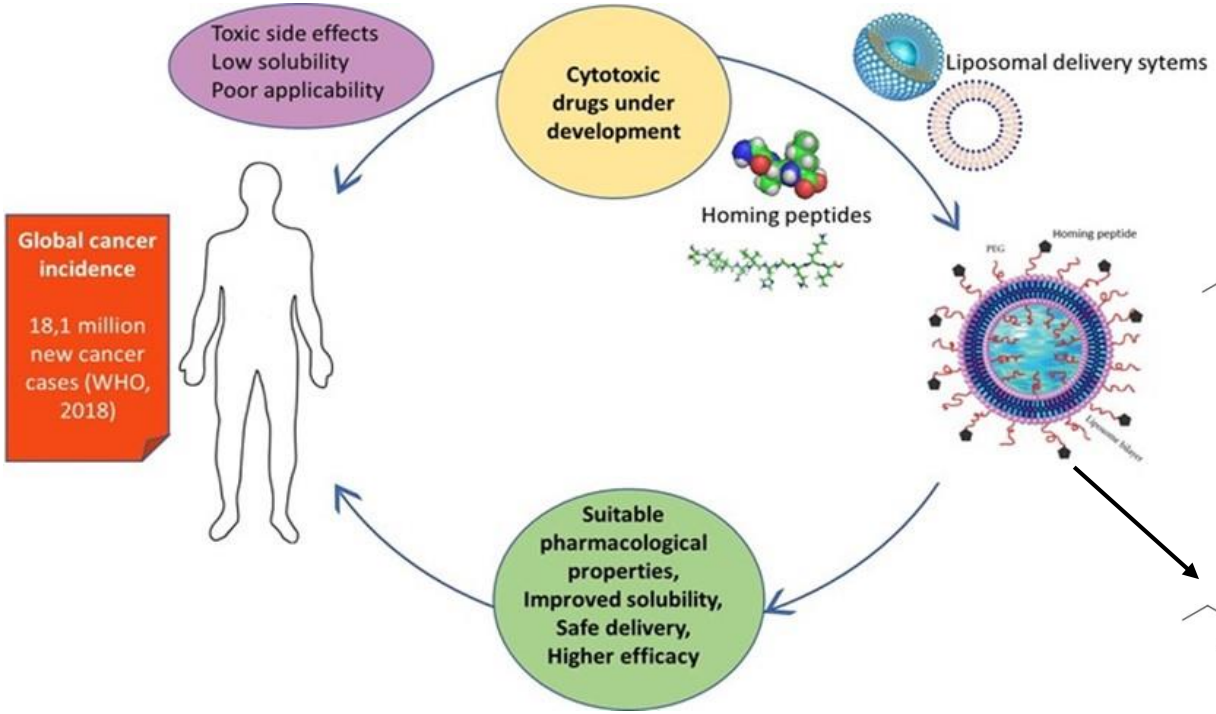


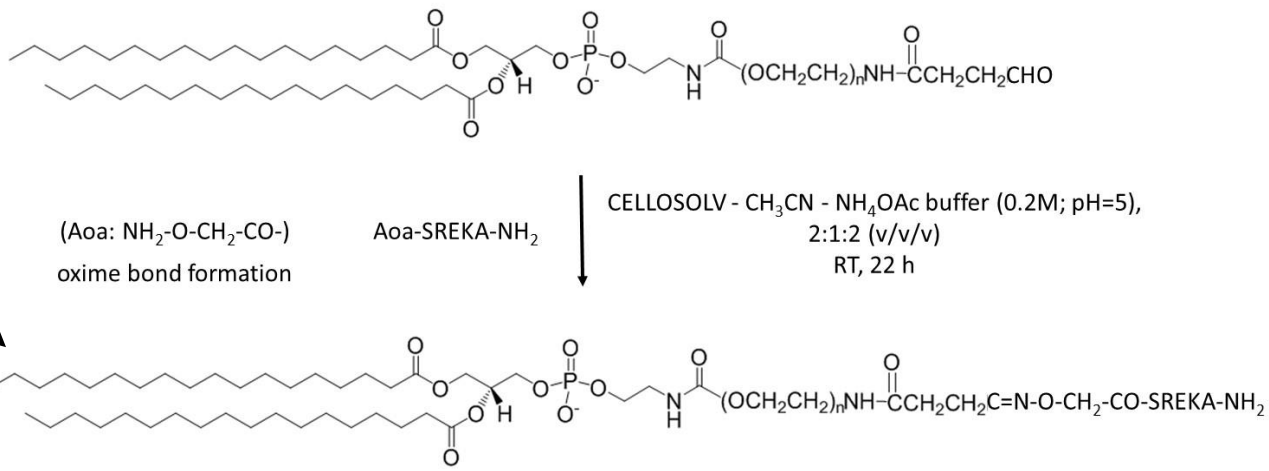


**Synthesis/method/protocol:** Functionalized (aldehide, thiol, maleimide, azide) DSPE-PEG molecules that can be incorporated into liposomes were linked to SREKA or CREKA homing peptides by chemo-selective ligation through oxime, thioether or triazole linkage.

**Scientific Goal:** Development of novel liposome structures decorated with homing peptides for targeted drug delivery.

**Result:** Reaction conditions were optimized and appropriate purification and analytical protocols were developed. In comparison the yields of ligation procedures, it seems that the oxime bond formation is the most effective method for the preparation of PEG-lipid-peptide systems. Development of drug loaded liposomes decorated with homing peptide as well as their *in vitro* and *in vivo* comparative studies are in progress.