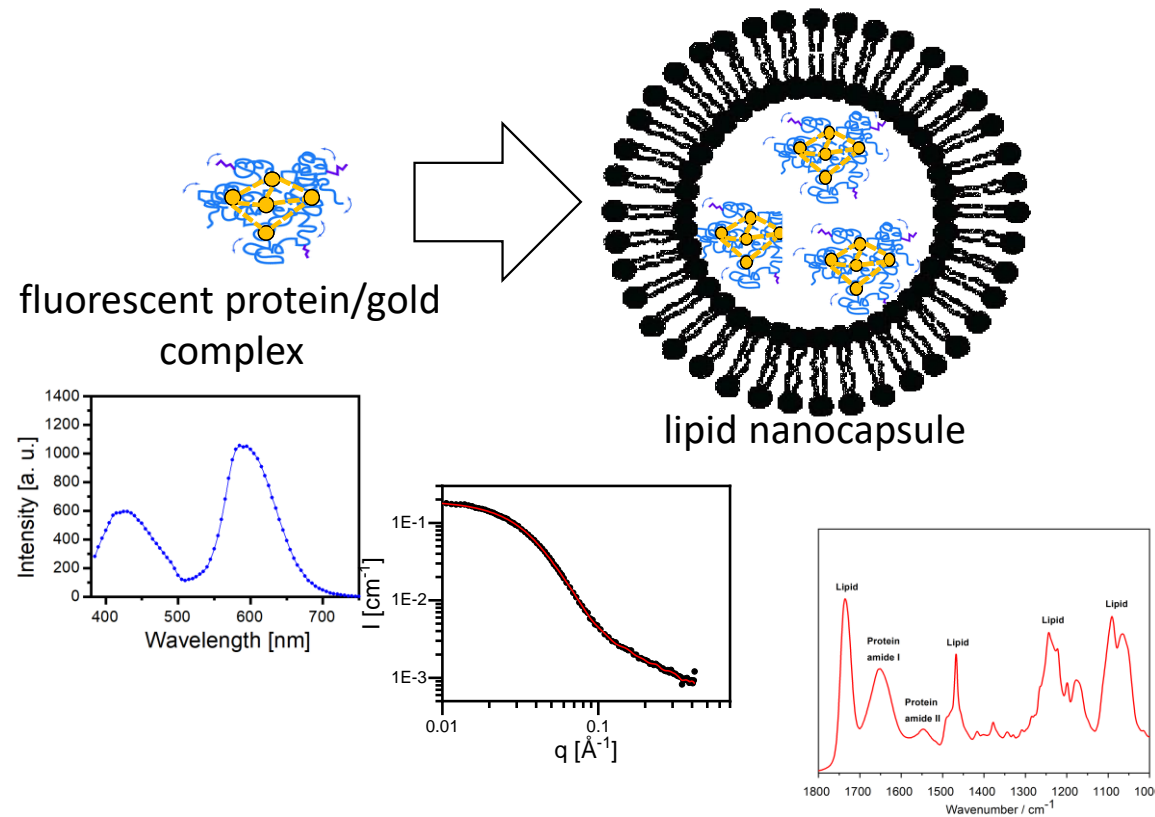


# Preparation of fluorescent lipid nanocapsules using protein/gold complexes as fluorophore



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**Synthesis / method / protocol:** Fluorescent protein/gold complexes encapsulated in unilamellar liposomes are synthesized and characterized by biophysical (IR spectroscopy, small-angle X-ray scattering) and optical methods.

**Scientific goal:** The outer lipid layer is aimed to protect the fluorescent gold nanoclusters against undesirable environmental effects and to enhance their biological applicability.

**Result:** The presence of  $\text{Ca}_2^+$  ions enhances the encapsulation efficiency of protein/gold complex. Synchronized IR spectroscopy and SAXS measurements revealed peculiar structural changes of the protein in the Au@BSA complex.