Camouflaged SEDDS for the active targeting of *Inula Viscosa* extract for the treatment of metastatic melanoma

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SEDDS are systems capable of increasing the bioavailability of drugs, improving dissolution and preventing the oxidation of active ingredients . *Inula viscosa* is known for its anticancer properties, in particular for the treatment of malignant melanoma. The aim of this work was to prepare and characterize SEDDS containing glycolic extract of *Inula viscosa* (IVE-G) to be used for the treatment of metastatic skin cancer. The next step will involve the preparation of SEDDS camouflaged with lipids extracted from biological membranes of SK-MEL28 cells in order to selectively deliver them to homotypic target. A preliminary coating of SEDDS-IVE-G with synthetic liposomes (SEDDS-IVE-G-LP) was carried out. SEDDS-IVE-G and SEDDS-IVE-G-LP were characterized by size, polydispersion index (IP), z-potential (PZ). Cell viability assays of IVE-G, SEDDS, SEDDS-IVE-G, SEDDS-IVE-G-LP were performed on murine embryonic fibroblast cell line BALB/3T3 clone A31 and on human skin melanoma cell line SK-MEL-28. The caffeic acid (AC) content in IVE-G content was 2.03 ± 0.14 mg/g. The SEDDS-IVE-G obtained had dimensions of 134 ± 0.153 nm, IP values of 0.190 ± 0.010, and of ZP -7.2 ± 0.300 mV, while the SEDDS-IVE-G-LP had dimensions of 129,0 ± 1,266 nm, IP values of 0,134 ± 0,015, and ZP -9,75 ± 0,107 mV. Biological assessments carried out on cell lines demonstrate the absence of toxicity for the vehicle used, and the exposure of cells to IVE-G and SEDDS and SEDDS-LP containing IVE-G induces programmed cell death.