NANO-CURVIT will develop and characterize a selection of nanocarriers for the administration of (two)active ingredients to obtain optimized formulations by means of computational, *in vitro* and *in vivo* modelling and a complete, exhaustive and consistent set of studies, which could be standardised in order to create the useful tools for European regulatory agencies not currently available.

Dendrimers, liposomes and polymers have been chosen as main models with high potential but unsolved issues. Vitamin C (hydrophilic) and curcumin/curcuminoids (hydrophobic) have been chosen as active ingredients candidates since they are ideal models due to their lack of bioavailability and their safe profile that allows a relatively fast development and a simplified set of toxicity studies. Overall they have an interesting similar therapeutic/prophylactic profile: exciting results *in vitro* in tuberculosis. Previous experience and knowledge of the different groups of synthesis, characterization and modelling with these nanoparticles and actives is a guarantee of success. Oral administration has been selected since it is the most “natural” route, yet very little studied with nanocapsules.

NANO-CURVIT is aimed at overcoming technological issues related to the technology (shape, size, surface or deformability, composition, stability) that can affect the *in vivo* performance and safety of nanoparticles (increased absorption, stomach stability, non-aggregation, controlled distribution or intrinsic toxicity of dendrimers) or of the actives themselves (control oxidation, prolong circulation times, synthesis of curcumin).

NANO-CURVIT intends to end the project with a proof of concept consisting of optimised vitamin C and curcumin controlled delivery formulations as food supplement to be used in tuberculosis. This proof of concept could be used as a basis for a future development as a medicinal product to treat tuberculosis.