Title	Development of a combined nanovaccine for canine melanoma

Keywords	Nanovaccine, oral melanoma, dog

Summary	The dog is a well-recognized spontaneous model for human melanoma, sharing common genetic and molecular anomalies. Nanoparticles have shown great potential as delivery systems for cancer vaccines as they potentiate the co-delivery of tumor-associated antigens and toll-like receptor (TLR) ligands to dendritic cells, leading to a more effective activation of the immune system. MelanA/Mart-1 and gp100 are known melanoma antigens widely explored as immunotherapeutic targets by inducing cytotoxic responses against tumor cells. Although there are different immunotherapy approaches under research in the veterinary field, there are no published research on the co-delivery of melanoma antigens and TLR ligands using a nanoplatform. This project aims to develop a canine mannosylated nanovaccine previously validated for human melanoma, co-delivering MelanA/Mart-1 plus gp100 antigens, and CpG, and to test its immunogenicity using in vitro and in vivo models of melanoma.

Supervision	
Supervisor	Lisa Mestrinho (CIISA-FMVUL) lmestrinho@fmv.ulisboa.pt
Co-Supervisor	Helena Florindo (iMED, FFUL)