

The topic of the current research of Dr. Panzarini relies on the study of extracellular vesicles released by glioblastoma multiforme cells. In particular, this research focuses on the designing a lab-on-chip based on magnetic nanoparticles as alternative, safe and less expensive diagnostic tool, able to recognize extracellular vesicles released by glioblastoma cells on the blood. Dr. Panzarini is scientific manager of the research project of the Puglia Region titled "Realization of a miniature nuclear magnetic resonance imaging system for the diagnosis and monitoring of glioblastoma". She achieved the degree in Biology and the PhD in Biology and Biotechnology at University of Salento in the Comparative Anatomy and Cytology Laboratory. She studied the effects of low intensity static magnetic fields on human cells (thesis of degree) and the efficacy of photodynamic therapy in inducing death in cancer cells (thesis of PhD). In particular, during the PhD, she studied the cell death and the impact of therapy on immune system cells in order to design a protocol able to trigger immune responses against cancer cells. She also evaluated the mechanism of phagocytosis, through *in vitro* and *in vivo* experiments.

Moreover, she currently collaborates in the design of nanoparticles that can be used in drug delivery, evaluating the best surface functionalization to modulate positive or negative effects on cells. Moreover, she collaborates with the Lecce and Torino sections of the National Institute of Nuclear Physics (INFN) and the Institute of Clinical Physiology of the CNR of Pisa in the development of a protocol of proton therapy based on the application of gold nanoparticles. In particular, Dr. Panzarini performs *in vivo* experiments by using murine models and electron microscopic techniques to evaluate the biodistribution of gold nanoparticles.

Dr. Panzarini has collaborated in the design of synthetic polymers used in aesthetic and reconstructive medicine by evaluating the tissue response to the implantation of the polymers by designing *in vivo* experiments in murine models.

She is competent in biochemical and microscopic techniques, in primary and secondary cell cultures and in the manipulation of animal models.

She is member of the European Society of Photobiology (ESP), the Italian Society of Photobiology (SIFB) and the Gruppo Embriologico Italiano (GEI).

Her scientific research is reported in 45 papers published in international journals and in several reports presented at national and international conferences.

H index: 14 (Scopus)