Doctoral School of Information and Biomedical Technologies
Polish Academy of Sciences (TIB PAN)

SUBJECT: Hybrid inorganic-organic nanoparticles for cancer therapy

DISCIPLINE: biomedical engineering

SUPERVISOR: prof. dr hab. Michał Giersig

DESCRIPTION: The main goal of the PhD project will be the synthesis and physicochemical characterization of the hybrid nanocomposite to be used as a functional platform for anticancer drug delivery under different experimental conditions including the presence of an alternating magnetic field. As the therapeutic effect depends on many experimental variables, the project will focus on investigating the correlation between the composition of the hybrid and its therapeutic effect on the different cancer cell lines. The main purpose of this project is to identify the optimal experimental conditions to provide the nanocomposite that has the highest therapeutic effect on the cancer cells and offers the synergistic effect of local drug chemotherapy and magnetic hyperthermia.