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PhD Project Title: Biocompatible smart nanovectors for the chemotherapy treatment of prostate cancer.

Research Summary:

The main objective of my PhD research project is to improve the combination chemotherapy for prostate cancer, developing PLGA-PEG fluorescent biocompatible nanovectors (NVs) for drugs loading, decorated with angiogeninmimicking peptides, leading to a double effect: impairment of cancer cells angiogenesis and drugs' delivery at the tumour site.

Prostate cancer is among the most common cancers in men. It has a poor prognosis in case of relapse or late-stage detection, making urgent improved therapies. Therefore, the aim is to create nanovectors able to enhance the drugs' intake and the therapeutic effects through targeted delivery, and to reduce/abolish the intake of the plasma circulating Angiogenin into the prostate cancerous cells.

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