



Targeting tumor microenvironment by a translational multivalent nanomedicine: towards an effective anticancer combination immunotherapy

Acronym: Nanotumim

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“This highly innovative nanoplatform will allow the combination of a cytotoxic drug at cancer site with a balanced and multi-targeted immunotherapy”

The survival of patients with metastatic colorectal cancer is low; therefore an effective strategy against the heterogeneous population of cancer cells requires a combinatory approach. The Nanotumim project will develop an integrative and multivalent nanotechnology-based therapeutic strategy to manipulate the multiple pro-tumorigenic mechanisms within tumor microenvironment. The project will develop a chemically-defined nanoplatform able to conjugate engineered targeting moieties to in vivo target and modulate distinct cell populations including myofibroblasts, cancer cells, and dendritic cells aiming at reverting the tumor-immune network to a pro-inflammatory environment. This highly innovative nanoplatform will allow the combination of a cytotoxic drug at cancer site with a balanced and multi-targeted immunotherapy that hopefully will improve the outcome of patients with metastatic disease.

