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NANO4GLIO

Nanomedicine for glioblastoma therapy

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Glioblastomas are among the most aggressive and difficult-to-treat cancers. Besides advances in treatment, most of the tumors relapse and become refractory to treatment, leading to a 2-year-survival rate as low as 10-15 %.

This project aims to establish the experimental bases for a new treatment approach for glioblastoma. This approach is based on the combination of specific short fragments of genetic material (siRNAs) that will specifically eliminate proteins involved in the proliferation of glioblastoma cells and the increase uptake of anticancer drugs such as temozolomide by glioblastoma cells. For this purpose, we will use nanoparticles as carriers for both compounds (siRNA and an anticancer drug). These nanoparticles will deliver their cargo selectively to the glioblastoma cells using specific molecules attached to them that will find complementary molecules located in tumor.

