

DRUG-DIFF:
Prediction of drug diffusion on complex biomimetic environment

ADRESSED PATHOLOGY: Cancer

GENERAL OBJECTIVE:

Development of a new methodology to predict response of tumor cells to anti-tumoral drugs in complex biomimetic microenvironments. This novel approach will allow to assess pharmacokinetic response in advanced *in vitro* models using microfluidic devices to choose the most efficient treatment. Moreover, prediction with *in silico* models of pharmacokinetic response will be developed in order to simulate and predict the diffusion of the drugs in the tumor, the death mediated by apoptosis and the tumoral cell response to drugs. These two complementary approaches will be used to test efficacy of novel anti-tumoral drugs release systems with nano-liposomes in biomimetic microenvironment on chip.

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