

## DENDRIMER-DRIVEN ANTICANCER SIRNA DELIVERY

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The rapid development of nanotechnology led to the appearance of the new perspective engineered nanomaterials for cancer imaging and gene therapy including fullerenes, carbon nanotubes, nanoparticles of metals, quantum dots and dendrimers. Dendrimers are branching polymers which structure is formed by monomeric branches diverging to all sides from a central core. Dendrimers have found their place in medicine as new synthetic vectors for gene therapy [1].

We are studying the dendrimer-based delivery of anticancer small interfering RNAs into cancer cells. It was found that the dendrimer-based siRNA transfection depended both on type of a dendrimer and on its generation. Also, it was found that siRNA cocktails were more effective than the single siRNAs to treat cancer cells. Thus, nanomaterial-driven gene therapy is the perspective way to treat cancer.

This work was supported by a Marie Curie International Research Staff Exchange Scheme Fellowship within the 7th Framework Programme of European Union, project No. PIRSES-GA-2012-316730 'NANOGENE'.

### **References:**

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