

TITLE OF THE PROJECT: Structural investigation of drug delivery systems consisting of biohybrids based on DNA, biomimetic membranes, “green” nanometals and therapeutic agents

THEME: 04-4-1141-2020/2022

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LABORATORY IN JINR: Frank Laboratory of Neutron Physics (FLNP)

PARTNERS IN ROMANIA: Faculty of Physics, University of Bucharest (FFUB)

RESPONSIBLE PERSONS: Lect. dr. Marcela-Elisabeta Barbinta-Patrascu (FFUB), Senior Researcher dr. Yulia Gorshkova (FLNP)

OBJECTIVES:

- the eco-design and complex characterization of innovative biohybrids with multifunctionality

ESTIMATED RESULTS:

The main results expected from this investigation are:

- “green” preparation of biohybrids based on DNA, liposomes and metallic nanoparticles
- spectral, structural and morphological characterization
- evaluation of biological performances of obtained materials (antioxidant capacity, antimicrobial action, haemolytic activity, antiproliferative activity)