

03.04.02 Physics

Biomedical Photonics

Department: “Laser Micro- and Nanotechnologies”(specialized industrial department of Prokhorov General Physics Institute of the Russian Academy of Sciences)

Program objective

Through the understanding of fundamental laws of physics develop the following research directions:

- the interaction of optical radiation with biological tissues, including those containing nanoparticles, various types of nanophotosensitizers
- the interaction of optical radiation with individual nanophotosensitizers of various nature and their ensembles
- laser technologies micro- and nanotechnology and biological sciences (interaction of radiation with biological tissues, spectroscopy, biology, physiology, colloidal chemistry, photonics)

Competitive advantages

- combination of deep fundamental training of physics, mathematical and engineering
- opportunity to participate in international conferences, research projects, internships in leading foreign research centers
- opportunity to create new elements, devices and equipment through a network of small innovative enterprises in research teams with leading employees

Practical training and employment opportunities

- Prokhorov General Physics Institute, Lebedev Institute of Physics and other institutes of the Russian Academy of Sciences
- leading research universities and medical centers