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**ТHE PHOTON ASSOCIATED NANOBIOTECHNOLOGY CONTRIBUTION TO PERSONALIZED AND LASER MEDICINE**

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Nanobiotechnology play an essential role in developing medicine of personalization and its diagnostics. Due to biomarker molecules , we can determine the condition of destruction process of cell, DNA or RNA.

Molecular visualization is the most important diagnostic modality, combining a therapeutic and diagnostic approaches. Nanoparticles are used to generate molecular visualization, which allows to select patients for personalized therapy.

The principle of quantum entanglement can be the base of safe ( quantum ) cryptography, quantum Internet, modern computational algorithms and photon teleportation.

Nanofotonika encompasses interaction process of light and particles having the size which is much more less than the optical wavelength range of the electromagnetic spectrum. Using Raman scattering turned out to be possible to study the chemical bonds within the molecules, the geometry of the structure of chiral molecules, nanobiosensoriki problems associated with the detection of protein analytes, toxins as well as the molecular processes of vulnerability of atherosclerotic plaques and differentiation of stem cells.

The Significant role in the study of optical properties of noble metals is playing nanosurface plasmons which is a collective oscillations of free electrons within the surface of metal nanofilms. Thanks to nanoplasmonics it totally became possible to transmit electromagnetic radiation along the chain of metal nanoparticles by laser excitation impact is plasmon oscillations to improve optical DNA biosensors, accomplish highly sensitive diagnosis of the tumor markers, develop immunosencoriki and study of conformational changes of biomolecules, as well as conducting bioassays using SERS are spectroscopy and other purposes.

Modern development of nanotechnology and biotechnology approaches led to the creation of multifunctional nanoparticles as advanced technology nanobiofotonnoy teragnosticheskogo for simultaneous exposure. Integration of individual visualization of nanoparticles with different properties in the multifunctional biobuilding allows more locally and quickly molecular diagnosis of cancer, as well as through its targeted delivery of therapeutic exercise (including laser ) exposure in the personalized medicine.