

Study of changes in biochemical parameters of rats after acute exposure to gold core-shell hybrid nanostructures

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Abstract:

Gold nanoparticles (GNPs) are one of nanomaterials widely used for biomedical purposes. Due to large surface area and high sorbtion capacity, they can be coated by various biomolecules to produce gold core-shell hybrid nanostructures (GHNs). GHNs posess a great potential as agents for diagnostics, controlled drug delivery, bioimaging, cancer treatment, photodynamic therapy, etc. Use in biomedicine arises a problem of GHNs' toxicity towards humans. Therefore, studies of biological effects caused by GHNs after in vivo administration are of great relevance.

Biography:

Olga D. Hendrickson, PHD student in Federal Research Center «Fundamentals of Biotechnology» of the Russian Academy of Sciences, Russia. He has worked on the relationships between Biomedical applications of gold nanoparticles. This work was done in collaboration with his colleagues. This investigation was supported by the Ministry of Science and High Education of the Russian Federation (state contract 14.613.21.0086, unique identifier of the project.



Publication of speakers:

- D Cabuzu, A Cirja, R Puiu and AM Grumezescu. Biomedical applications of gold nanoparticles. Current topics in medicinal chemistry. 2015. 15(16): 1605-1613.
- 2. J Peng and X Liang. Progress in research on gold nanoparticles in cancer management. Medicine. 2019. 98(18):e15311...
- 3. H Bahadar, F Maqbool, K Niaz and M Abdollahi. Toxicity of nanoparticles and an overview of current experimental models. Iranian biomedical journal. 2016. 20(1):1-11.
- 4. M Ajdary, MA Moosavi, M Rahmati, M Falahati, M Mahboubi, A Mandegary, S Jangjoo, R Mohammadinejad and RS Varma. Health concerns of various nanoparticles: a review of their in vitro and in vivo toxicity. Nanomaterials 2018 8(9).

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