Reviewer’s report

Title: Superparamagnetic iron oxide nanoparticles mediated 131I-hVEGF siRNA inhibits hepatocellular carcinoma tumor growth in nude mice

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Reviewer: Oleg Lunov

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Jing Ch. et al., describe approach for real-time tumor monitoring, gene therapy, and internal radiotherapy using superparamagnetic iron oxide nanoparticles. Indeed, studies of production new nano-based contrast agents are very valuable and up-to-date. Thus, it is an interesting and very important topic.

This manuscript concerns a potential biomedical and biotechnological applications of iron oxide nanoparticles modified with small interfering RNA with radiolabled iodine 131. This is an interesting paper on a timely subject. The paper is well focused and written clearly, and the conclusions are adequately supported by the provided data.

However one should mention that ANOVA is a collection of statistical models and it is not a single test! Appropriate statistical evaluation should be applied to all data. Of note, T-test is valid only if the underlying distribution is Gaussian, i.e. when sampling is large enough (100 or more observations). Furthermore, to test for differences of means among more than 2 groups, the t-test is inappropriate [1]. In order to avoid type I statistical error, non-parametric tests should be used.


Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.