Project MEFT Workshop (2nd Edition)



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Gold Nanoparticles as Radiosensitizers for Radiation Therapy

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Radiotherapy is one of the most reliable and widely used treatments for tumours. However, it is not possible to irradiate only the tumour cells, surrounding healthy tissue will also receive a considerable dose. It is therefore necessary to reduce the radiation dose delivered to the healthy tissues of the patient, while maximizing the dose delivered to the tumour. One attractive option is the use of gold nanoparticles as radiosensitizers, as they are biocompatible, easy to fabricate and effective in dose enhancement. The aim of the work is to determine the potential benefit of combining radiation treatment with gold nanoparticles, by studying the effects induced by gamma- and X-rays in prostate cell lines loaded with these radiosensitizers.

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