

Seminar general

Cell cycle checkpoints and DNA repair after radiation

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In clinical radiotherapy the cancer cells are killed largely due to DNA double strand breaks caused by ionizing radiation. However, in some cases the tumor cells may survive the damage due to efficient DNA repair. One promising strategy to improve treatment of radioresistant tumors is therefore to combine radiotherapy with inhibitors of DNA repair. Here, I will discuss how cell cycle checkpoints contribute to DNA repair and tumor radioresistance. I will also present a large-scale screen aimed at identifying drugs that inhibit DNA repair after radiation. Finally, I will discuss possible differences between X-ray and proton irradiation in this context.

Thursday, September 29, 2022, 11:00
The Training and Research Centre of IFIN-HH