

Seminarium Studium Doktoranckiego NCBJ
Poniedziałek, 14 stycznia, godzina 9:00
Sala 22 w NCBJ, Hoża 69

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Modelling of human cell reactions to ionizing radiation
– from a DNA lesion to a cancer growth

Understanding the consequences of exposure to low dose ionizing radiation is an important public health concern. It has become clear that cellular responses can be very different at low compared to high radiation doses. Important biological mechanisms may play key role in dose-response at low doses, which has been described by many deterministic and stochastic models, that try to implement current radiobiological knowledge to experimental data. In this talk, I will discuss post-irradiation cellular processes. I will present dose and time-dependent analytic model of responses of cells in the body to ionizing radiation for two exposure categories: acute and protracted.

Special emphasis will be dedicated on the new approach of capturing the key dynamics–formation of the tumour.