



SPECIAL SEMINAR

Wednesday 17/1/18, 12:00 pm

Building 211, seminar room

SPEAKER:

Dr. Irina V. Guzhova

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TOPIC:

Chaperone modulators in combinational anti-cancer therapy

Molecular chaperones belonging to heat shock protein (Hsps) families constitute powerful mechanism for cell protection against a great number of stressful and pathogenic agents. The fact that Hsps protect tumor cells from anti-cancer therapies prompts the scientists to search for inhibitors of the proteins' function or their common regulator, heat shock transcription factor, Hsf1.

One of the Hsf1 inhibitors, chemical belonging to cardenolide group, CL-43 was found to reduce the amount of principal chaperones Hsp70 and Hsp90 in cancer cells and to inhibit their growth. While being not toxic CL-43 increases the growth-inhibitory and cytotoxic effects of traditional anti-cancer medicines, doxorubicin, etoposide and cisplatin by 20-40%. This beneficial action allows to reduce the dose of the major drug and to avoid side effects on healthy cells.