

4th Annual Conference on
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An overview on the recent developments made in anti-cancer drug therapy and origin of gold nanoparticles as a valuable resource

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Treatment for life threatening diseases like cancer has been the most discussed and prioritized point of concern to many scientists and researchers all over the world related to Medical Health and Allied Sciences. The various kind of combinations of interactions of other drugs with Anti cancer drugs such as melphalan and 5-Fluorouracil has proved that there is definitely an increase in efficiency of drug action in killing tumor cells. Combination dexamethasone with melphalan helped in treatment of POEMS syndrome. Melphalan, also is helpful in liposomal drug delivery systems. One of the studies also proved the efficiency of intravitreal and sub-conjunctival injections in killing tumor cells. Cyclophosphamide pretreatment along with high dose of melphalan also helped in increase in efficiency of drug action on tumor cells. High dose of melphalan has also been proved to help in treatment of Neuroblastoma. Bleomycin is the drug in combination with Cisplatin and Etoposide would help in treatment of Non-seminomatous germ cell tumours (NSGCT). According to another study this drug also induces pulmonary fibrosis is independent of eosinophils. Another study helps in evaluating the action of Bleomycin which may cause histological, immunohistochemical and biochemical changes in the pulmonary alveoli of adult male albino rats after its administration. One more study states that Bleomycin has better efficacy in drug action when it is administered in oil emulsion than that of W/O emulsion. Another study helps in assessing the sustained delivery and enhanced efficacy of pirfenidone-loaded nano particles after intra tracheal instillation. Nanoparticles are also said to be very effective in Cancer eradication. Combinational therapies also help in providing an effective decimation of cancer cells. NPs are also said to be used in plasmonic photothermal therapies in order to eradicate cancer. Another study proves that there was increase in toxicity due to increase in the size of NPs which proves that the size of these particle also play a major role in providing an effective action in curing cancer. In another study, blue mussel *Mytilus edulis* was observed to experience oxidative stress during exposure to AuNPs for 24hrs. Another study helps us in understanding the importance of Polydopamine enabled surface functionalization of gold coated nanorods which was helpful in providing a light activated photothermal therapeutic response which thereby produces photo induced toxicity of both breast and oral cancer cells which was further followed by NIR irradiation.

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