CURRENT RESEARCH TOPICS IN PHARMACY:

An Overview of Novelties in Cancer Treatment

February 15th, 2024

FIRST SESSION
10:00-11:30 AM
Moderator:
Betül OKUYAN

Welcome
Prof.Hatice Kübra ELÇİOĞLU

Natural products mediated targeting of deregulated signaling pathways for chemoprevention of carcinogenesis and metastasis
Prof. Ahmed Ammad Farooqi

Mesoporous silica nanoparticles: A smart tool for biomedical applications
Assoc.Prof.Fahima Dilnawaz

Phytosomes: A Dynamic Innovation in Cancer Treatment
Assist. Prof. Dhanashree Sanap

SECOND SESSION
13:00-14:30 PM
Moderator:
Ceyda EKENTOK ATICI

Increased awareness of sex and gender as modulators of cancer risk and outcome is required among cancer researchers
Assoc.Prof.Berna Özdemir

Management of oral chemotherapy-related problems in cancer patients
Pharmacist Elif Aras Atik

Cervical Cancer Treatment and HPV Vaccination: Preventive Priority for Future Generations
Assist. Prof. Sneha Agrawal

THIRD SESSION
15:30-17:00 PM
Moderator:
Esra TATAR

Exploring new drug delivery avenues for targeted and localized cancer therapy through advanced nanotherapeutics
Assist.Prof.Monika Dwivedi

Plectranthus: A Valuable Source of Bioactive Compounds for Therapeutic Applications
Assoc.Prof.Patricia Rijo

Targeted delivery of ligand-displaying exosomes using RNA nanotechnology for breast cancer
Dr.Burcu Üner

CHAIR
Prof. Hatice Kübra ELÇİOĞLU
VICE CHAIRS
Prof. Levent KABASAKAL & Assoc. Prof. Esra TATAR & Dr.Ayşe Nur HAZAR YAVUZ

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EXPLORING NEW DRUG DELIVERY AVENUES FOR TARGETED and LOCALIZED CANCER THERAPY THROUGH ADVANCED NANOTHERAPEUTICS

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Cancer therapy has evolved with the emergence of nanotherapeutics that implemented various innovative strategies for targeted and localized therapy. Moreover, by addressing the limitations of conventional chemotherapy, nanotherapeutics had paced the cancer diagnosis and therapy. These nano dragoons bearing anticancer drugs have displayed prominent delivery efficacy in cancer cells owing to their unique attributes such as high drug encapsulation efficiency, enhanced permeability and retention effect, surface modification for targeted and localized delivery in the vicinity of tumor. Furthermore, nanotherapeutic advancement featured with stimuli-responsive nanodelivery systems direct the release of therapeutic payloads in response to internal environmental signals or external stimuli modes thus generating on-demand chemotherapy. These advanced nanotherapeutics are developed by various surface modification strategies for tumor targeting as reflected through my research study on dextrose modified bilosomes for improved therapeutic potential in hepatic carcinoma. In another research project, I am working on the development of ultrasound microbubbles for localized therapy for skin cancer management. The research outcomes from this project unveiled the capacity of ultradeformable liposomes anchored microbubbles to achieve a localized delivery into the deep-seated melanoma cells on ultrasound activation. In this league for safe chemotherapy, nanotherapeutics had unfolded multiple strategies for treatment of cancers that effectively improve bio-efficacy and reduce the toxic burden on patients.

Keywords: Nanotherapeutics; surface modification; chemotherapy; ultrasound; targeted and localized therapy.

 http://dx.doi.org/10.29228/jrp.771

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