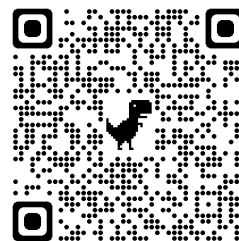


CURRENT RESEARCH TOPICS IN PHARMACY:

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

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MESOPOROUS SILICA NANOPARTICLES: A SMART TOOL FOR BIOMEDICAL APPLICATIONS

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One of the main causes of death in the globe is cancer. Conventional treatment methods include radiation therapy, chemotherapy, and surgical resection. However, because these medications are non-selective, patients experience a variety of toxicity problems, including serious side effects and drug resistance. In this context, nanotechnology has been positioned as a smart technology that enables the system to target particular areas with pharmaceutical delivery. Nanotechnology is used to manufacture a variety of nanoparticles that are frequently used as drug-delivery vehicles for biological applications. A lot of interest has been focused on mesoporous silica nanoparticles (MSNs) due to their easy surface modification, high surface areas, tunable pore sizes, outstanding thermal and chemical stability, and excellent biocompatibility. Different stimulus-response gatekeeper systems can also be used to regulate drug release from MSNs. Improved permeability and retention effects, further surface modification, and active targeting by various ligands are just a few ways that the well-organized structure of MSNs makes them particularly suitable for loading a large number of drug molecules with regulated delivery for the treatment of cancer tissues. It will take more translational studies to examine MSNs' multifunctional capabilities in a clinical setting, even if they are starting to show promise as a safer and more effective cancer treatment method.

Keywords: Mesoporous silica nanoparticles; biomedical applications; nanotechnology; drug delivery; cancer.