



JAMIA HAMDARD

Centre of Excellence in Unani Medicine

(Pharmacognosy & Pharmacology)

Bioactive Natural Product Laboratory (BNPL)

Welcome to esteemed members of
**SOCIETY FOR NEW AGE HERBALS &
DR. NEERAJ TANDON**

Former Head, Division of Medicinal Plants & Publication and Information, ICMR, New Delhi

for Lecture on
Toxicological Aspects of Herbal Drugs



5th August 2023 (Saturday) 11:00 a.m. (IST)
Venue: CoE, BNPL, Nano building 3rd Floor



SCAN TO DRIVE

ENTRY IN JAMIA HAMDARD VIA GATE NO 06 OR 03

Topic: Toxicological Aspects of Herbal Drugs

CoE Lecture Series #2



Dr. Neeraj Tandon, Former Head, Division of Medicinal Plants & Publication and Information, ICMR, New Delhi. She has experience of more than 38 years in the area of biomedical research. She has 50 publications to her credit. She is World Health Organization (WHO) fellow on Medicinal Plants Information Systems at the Department of Medical Chemistry College of Pharmacy, University of Illinois, Chicago.

Topic: Toxicological Aspects of Herbal Drugs

- Dr. Neeraj Tandon delivered a lecture on the topic of "Toxicological Aspects of Herbal Drugs". In her presentation, she delved into the realm of toxicology, which involves determining the threshold at which substances become harmful. She emphasized key principles including dose-response relationships, the processes of chemical absorption, metabolism, and elimination in the body, major health effects of intoxications, basics of physiology, toxicokinetics, and cellular toxicology. Dr. Tandon also covered the causes of toxicity, discussed alkaloids and glycosides-based drugs that can induce toxicity, and elaborated on toxicity testing of Medicinal and Aromatic Plants (MAPs). One of the key points she highlighted was the significance of bioavailability and the notable concern surrounding herb drug interactions. To underscore her points, she quoted examples of *Allium sativum* Linn, *Andrographis paniculata* (Burm.f.) Wall. ex Nees, *Asparagus racemosus* Willd., *Phyllanthus amarus* Schumach. & Thonn., *Sesamum indicum* Linn., and many more. She addressed controversies related to safety and effectiveness associated with commonly used Indian medicinal plants. She offered case studies involving herbs like *Withania somnifera* (L.) Dunal, *Curcuma Longa* Linn., and *Andrographis paniculata* (Burm.f.) Wall. ex Nees linked to hepatotoxicity and anaphylactic reactions, respectively as well as concerns about fertility related to *Bacopa monnieri* (L.) Pennell.
- She provided information regarding critical factors that serve as tipping points. These include recognizing the inherent toxic components within herbal drugs, ensuring quality through steps like accurate identification and contaminant-free production, clearly indicating contraindications on product labels, and producing safety data as a prerequisite before introducing them to the market.
- During her lecture, Dr. Tandon posed the prominent query, "Is toxicity testing of traditionally used herbal medicines required?" She also accentuated the significance of implementing Pharmacovigilance for herbal medicines. She put forth some authoritative recommendations on literature sources for safety review of herbal drugs.
- In conclusion, she tackled significant apprehensions pertaining to countering published toxicity research, finding resolutions for safety-related controversies, managing prohibitions on Indian Medicinal Plants prompted by unfavourable reports, and emphasized the need for regulatory and scientific vigilance to counter negative publicity.