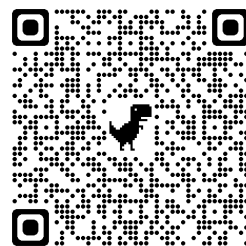


# CURRENT RESEARCH TOPICS IN PHARMACY:

## *Traditional Medicine Talks*

May 26<sup>th</sup>, 2023



### FIRST SESSION 11.00 AM-12.45 PM

*Moderator:*  
**Mehmet  
GÜMÜŞTAŞ**

Welcome  
*Assoc.Prof. Betül OKUYAN*

Bioorganic MgO nanoparticles attenuate oxidative stress and upregulate gene expression to attenuate doxorubicin-induced cardiotoxicity  
*Prof. Atiar Rahman*

Phytopharmaceuticals as a protagonist approach for upsurging bioactivity of traditional medicines  
*Assist.Prof.Monika Dwivedi*

Evaluation of *Withania somnifera* (Ashwagandha) in post-traumatic stress disorder induced neurobehavioral and biochemical markers : An experimental study  
*Dr. Sana Rehman*

### SECOND SESSION 13:00-14.45 PM

*Moderator:*  
**Ceyda EKENTOK  
ATICI**

HPTLC: A tool for herbal drug discovery  
*Prof. Abhishek Gupta*

Persian Traditional Medicine  
*Assist. Prof. Laleh Khodaie*

Folk medicinal plants of Turkey :  
An overview  
*Assoc. Prof. Gizem Emre*

Interactions of traditional and modern medicine in respiratory disorders : An Indian perspective  
*Prof. Arunabha Ray*

### THIRD SESSION 15.00-16.15 PM

*Moderator:*  
**Esra TATAR**

Traditional use of medicinal plants in Albania, past and present  
*Prof. Vilma Papajani*

Voltametric analysis of the antioxidative potential of medicinal plants traditionally used in North Macedonia  
*Assoc. Prof. Viktorija Maksimova*

Biological activities of *Scolymus hispanicus* L.  
*Assist.Prof.Pervin Rayaman*

### CHAIR

**Prof. Hatice Kübra ELÇİOĞLU**

### VICE CHAIRS

**Prof. Levent KABASAKAL & Assoc. Prof. Esra TATAR**

### ORGANIZING & SCIENTIFIC COMMITTEE

Editorial Board of Journal of Research in Pharmacy

<https://www.jrespharm.com/>

**JRP**

**Journal of Research in Pharmacy**

An international open-access journal of pharmacy and pharmaceutical sciences  
Formerly published as Marmara Pharmaceutical Journal

**ONLINE  
SYMPOSIUM**

# CURRENT RESEARCH TOPICS IN PHARMACY:

## *Traditional Medicine Talks*

May 26th, 2023

### ORGANIZING & SCIENTIFIC COMMITTEE

Editorial Board of Journal of Research in Pharmacy

<https://www.jrespharm.com/>

**Eser Tatar**  
(Vice Chair of Organizing Committee)  
Marmara University, Istanbul, Türkiye

**Levent Kabasakal**  
(Vice Chair of Organizing Committee)  
Marmara University, Istanbul, Türkiye

**Ayşe Nur Hazar Yavuz**  
(Secretary)  
Marmara University, Istanbul, Türkiye

**Abdulkarim Mohammed Abdi**  
Yeditepe University, Istanbul, Türkiye

**Afife Büşra Uğur Kaplan**  
Atatürk University, Erzurum, Türkiye

**Ahmet Emir**  
Ege University, Izmir, Türkiye

**Ali Demir Sezer**  
Marmara University, Istanbul, Türkiye

**Ahmed Ahmad Farooqi**  
Institute of Biomedical and Genetic Engineering (IBGE), Islamabad, Pakistan

**Ana V. Pejić**  
University of Kragujevac, Kragujevac, Serbia

**Anil Kumar Dwivedi**  
Central Drug Research Institute, Lucknow, India

**Anisa Elhamili**  
University of Tripoli, Tripoli, Libya

**Annalisa Chivaroli**  
G. d'Annunzio University of Chieti-Pescara, Chieti, Italy

**Antoaneta Trendafilova**  
Bulgarian Academy of Sciences, Sofia, Bulgaria

**Ayça Toprak Semiz**  
Giresun University, Giresun, Türkiye

**Ayfer Beceren**  
Marmara University, Istanbul, Türkiye

**Ayşe Esra Karadağ**  
Istanbul Medipol University, Istanbul, Türkiye

**Ayşenur Günaydin Akyıldız**  
Bezmialem Vakıf University, Istanbul, Türkiye

**Bahadır Bilibil**  
Düzce University, Düzce, Türkiye

**Betül Okuyan**  
Marmara University, Istanbul, Türkiye

**Bezza Ecem Öz Bedir**  
Ankara Yıldırım Beyazıt University, Ankara, Türkiye

**Burcu Üner**  
The University of Health Science and Pharmacy in St. Louis, USA

**Büşra Ertas**  
Marmara University, Istanbul, Türkiye

**Ceren Emir**  
Ege University, Izmir, Türkiye

**Ceyda Ekentok Altı**  
Marmara University, Istanbul, Türkiye

**Claudio Ferrante**  
G. d'Annunzio University of Chieti-Pescara, Chieti, Italy

**Debora Dummer Meira**  
Federal University of Espirito Santo, Vitória-Espirito Santo, Brazil

**Derya Özaıcı**  
Marmara University, Istanbul, Türkiye

**Dhanashree P. Sanap**  
Bharati Vidyapeeth's College of Pharmacy, Navi Mumbai, India

**Dinesh Kumar**  
Indian Institute of Technology (IIT), Varanasi, India

**Ebru Altıntaş**  
Istanbul University, Istanbul, Türkiye

**Efe Doğan Dincel**  
Istanbul University, Istanbul, Türkiye

**Ela Hoti**  
University of Medicine, Tirana, Albania

**Emine Terzi**  
Ankara Yıldırım Beyazıt University, Ankara, Türkiye

**Emiřhan Mamulla**  
Hacettepe University, Ankara, Türkiye

**Enre Kara**  
Hacettepe University, Ankara, Türkiye

**Enrah Özakar**  
Atatürk University, Erzurum, Türkiye

**Enkelejda Goci**  
Aldent University, Tirana, Albania

**Entela Haloci**  
University of Medicine, Tirana, Albania

**Ertan Rayıman**  
Marmara University, Istanbul, Türkiye

**Fatıha Missoun**  
University of Mostaganem, Mostaganem, Algeria

**Gizem Tatar Yılmaz**  
Karadeniz Technical University, Trabzon, Türkiye

**Gülberk Uçar**  
Hacettepe University, Ankara, Türkiye

**Gülşin Tınaz**  
Marmara University, Istanbul, Türkiye

**Gülşah Godik**  
Trakya University, Edirne, Türkiye

**Haidar A. Abdulamir**  
Al-Maaqil University, Basra, Iraq

**Hamide Sena Özbay**  
Hacettepe University, Ankara, Türkiye

**Hasan Erdiç Sellitpe**  
Karadeniz Technical University, Trabzon, Türkiye

**I. İrem Tatlı Çankaya**  
Hacettepe University, Ankara, Türkiye

**Kerem Buran**  
University of Health Sciences, Istanbul, Türkiye

**Kleva Shpati**  
Albanian University, Tirana, Albania

**Klodola Dhano**  
Aldent University, Tirana, Albania

**Laleh Khodae**  
Tabriz University of Medical Sciences, Tabriz, Iran

**Lejla Klepo**  
University of Sarajevo, Sarajevo, Bosnia and Herzegovina

**Lokman Ayaz**  
Trakya University, Edirne, Türkiye

**Long Chiau Ming**  
Sunway University, Sunway City, Malaysia

**Lorena Memushaj**  
Aldent University, Tirana, Albania

**Maja Ortner Hadžibabić**  
University of Zagreb, Zagreb, Croatia

**Mehmet Çimçitbaş**  
Ankara University, Ankara, Türkiye

**Merve Kabasakal**  
University of Health Sciences, Istanbul, Türkiye

**Mesut Sancar**  
Marmara University, Istanbul, Türkiye

**Miloš N. Milosavljević**  
University of Kragujevac, Kragujevac, Serbia

**Mirela Miraç**  
University of Medicine, Tirana, Albania

**Mirjana Marčić**  
University of Belgrade, Belgrade, Serbia

**Mohd Younis Rather**  
Government Medical College Srinagar, Srinagar, India

**Murat Doğan**  
Cumhuriyet University, Sivas, Türkiye

**Nasir Idkhaldek**  
Petra University, Amman, Jordan

**Nurdan Taldin**  
University of Health Sciences, Istanbul, Türkiye

**Nurettin Yağı**  
Karadeniz Technical University, Trabzon, Türkiye

**Ongun Mehmet Saka**  
Ankara University, Ankara, Türkiye

**Oya Kerimoğlu**  
Marmara University, Istanbul, Türkiye

**Pablo Miralles Ibarra**  
University of Valencia, Burjassot, Spain

**Pankaj Dwivedi**  
The University of Health Science and Pharmacy in St. Louis, USA

**Patrícia Rijo**  
Lusofona University, Lisbon, Portugal

**Pınar Talay Pınar**  
Yüzüncü Yıl University, Van, Türkiye

**Renuka Khatik**  
Washington University in St. Louis, USA

**Rozarta Shkreli**  
Aldent University, Tirana, Albania

**Rukiye Sevinç Özakar**  
Atatürk University, Erzurum, Türkiye

**Rümeysa Keleş Kaya**  
Sakarya University, Sakarya, Türkiye

**Saeideh Soltani**  
Isfahan University of Medical Sciences, Isfahan, Iran

**Sakine Tuncay Tanrıverdi**  
Ege University, Izmir, Türkiye

**Selma Houchi**  
University Ferhat Abbas, Setif, Algeria

**Simone Carradori**  
G. d'Annunzio University of Chieti-Pescara, Chieti, Italy

**Sinan Sermet**  
Istanbul Arel University, Istanbul, Türkiye

**Sneha Agrawal**  
Bharati Vidyapeeth's College of Pharmacy, Navi Mumbai, Maharashtra, India

**Somaleh Soltani**  
Tabriz University of Medical Sciences, Tabriz, Iran

**Tarık Çatlı**  
Sarajevo School of Science and Technology, Sarajevo, Bosnia and Herzegovina

**Turgut Taşkın**  
Marmara University, Istanbul, Türkiye

**Uğur Karagöz**  
Trakya University, Edirne, Türkiye

**Ünzile Yaman**  
Kalip Çelebi University, Izmir, Türkiye

**Viktorija Maksimova**  
Goce Delchev University, Shtip, Republic of N. Macedonia

**Vladan Calliçay**  
Cardiff University, Cardiff, UK

**Vilma Toska Papajani**  
University of Medicine, Tirana, Albania

**Yeliz Şahin**  
Ağrı İbrahim Çeçen University, Ağrı, Türkiye

**Zahraa Amer Hashim**  
Mosul University, Mosul, Iraq

**Zarife Nigar Özdemir Kumral**  
Marmara University, Istanbul, Türkiye

**Zaina Althanoon**  
Mosul University, Mosul, Iraq

**Zoran Zeković**  
University of Novi Sad, Novi Sad, Serbia

JRP

Journal of Research in Pharmacy

An international open-access journal of pharmacy and pharmaceutical sciences

Formerly published as Marmara Pharmaceutical Journal

ONLINE  
SYMPOSIUM

# PHYTOPHARMACEUTICALS AS A PROTAGONIST APPROACH FOR UPSURGING BIOACTIVITY of TRADITIONAL MEDICINES

Monika DWIVEDI \*

Department of Pharmaceutical Sciences and Technology, Birla institute of Technology, Mesra,  
India

monika.nbri@gmail.com

\*Corresponding and presenting author

Phytopharmaceuticals emerged as a protagonist approach for enhancing the bioactivity and therapeutic potential of traditional remedies. Traditional medicines have been deeply rooted in cultural practices for centuries to address various health conditions. Upsurged drug delivery approaches offer a scientific framework to bridge the gap between traditional knowledge and modern medicine through phyto-pharmaceuticals. Phytopharmaceuticals can incorporate a spectrum of bioactive compounds, including polyphenols, alkaloids, flavonoids, and terpenoids, and effect in enhancing therapeutic outcomes through improved bioavailability, increased efficacy, and targeted action on specific molecular pathways. Present research work is focused on therapeutic enhancement of phytochemicals and extracts by encapsulating them in polymeric nanocarriers. We attempted co-delivery of polyphenolic bio-enhancers with oleanolic acid in chitosan coated PLGA nanoparticles for oral delivery with enhanced anticancer potential countering the toxicity issues of cancer chemotherapy. Advancement in phytopharmaceuticals aid in reinforcing the functionality of naringenin loaded poly caprolactone nanoparticles in terms of release, chemoprevention, and therapeutics. Thus, integration of phytopharmaceuticals into traditional medicine represents a progressive strategy for elevating the bioactivity of herbal remedies. This approach holds immense potential to upgrade traditional medicine and to establish evidence-based therapeutic interventions for global healthcare challenges.

**Keywords:** Phytopharmaceuticals; Traditional medicine; Bioenhancers; nanoparticles.

## References

- [1] Parashar P, Rathore M, Dwivedi M, Saraf SA. Hyaluronic acid decorated naringenin nanoparticles: Appraisal of chemopreventive and curative potential for lung cancer. *Pharmaceutics*. 2018; 10(1):33. <https://doi.org/10.3390/pharmaceutics10010033>.
- [2] Sharma M, Sharma S, Sharma V, Sharma K, Yadav SK, Dwivedi P, Agrawal S, Paliwal SK, Dwivedi AK, Maikhuri JP, Gupta G, Mishra PR, Rawat AKS. Oleanolic-bioenhancer coloaded chitosan modified nanocarriers attenuate breast cancer cells by multimode mechanism and preserve female fertility. *Int J Biol Macromol*. 2017; 104:1345-1358. <https://doi.org/10.1016/j.ijbiomac.2017.06.005>.
- [3] Gorain B, Karmakar V, Sarkar B, Dwivedi M, Leong JTL, Toh JH, Seah E, Ling KY, Chen KY, Choudhury H, Pandey M. Biomacromolecule-based nanocarrier strategies to deliver plant-derived bioactive components for cancer treatment: A recent review. *Int J Biol Macromol*. 2023;253(Pt 1):126623. <https://doi.org/10.1016/j.ijbiomac.2023.126623>.
- [4] Bhatt A. Phytopharmaceuticals: A new drug class regulated in India. *Perspect Clin Res*. 2016;7(2):59-61. <https://doi.org/10.4103/2229-3485.179435>.
- [5] Parashar P, Pal S, Dwivedi M, Saraf SA. Topical delivery of naringenin microemulsion through sericin gel for subsiding human epidermoid carcinoma and inhibiting UVB induced photoaging. *AAPS Pharma Sci Tech*. 2020; 21(6):215. <https://doi.org/10.1208/s12249-020-01766-1>.