## **CURRENT RESEARCH TOPICS** IN PHARMACY:

Traditional Medicine Talks

May 26th, 2023



### **FIRST SESSION** 11.00 AM-12.45 PM

Moderator: Mehmet GÜMÜŞTAŞ

Assoc.Prof. Betül OKUYAN

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

Phytopharmaceuticals as aprotagonist 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 overwiev 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/



Journal of Research in Pharmacy

iternational open-access journal of pharmacy and pharmaceutical scie

**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/

Abdikarim Mohammed Abdi

Afife Büşra Uğur Kaplan Atatürk University Erzurum Türkiye

Ahmet Emir Ege University, Izmir, Türkiye

Ali Demir Sezer

Anil Kumar Dwivedi
Central Drug Research Institute, Lucknow, India

Annalisa Chiavaroli
anunzio University of Chieti-Pescara, Chieti, Itali

Ayça Toprak Semiz Giresun University, Giresun, Türkiye

Ayfer Beceren
Marmara University, Istanbul, Türkiye

Ayşe Esra Karadağ İstanbul Medinol University İstanbul, Türkiye

Ayşenur Günaydın Akyıldız Bezmialem Vakıf University, Istanbul, Türkiye

Bahadır Bülbül Düzce University, Düzce, Türkiye

Beyza Ecem Öz Bedir ara Yıldırım Bayezıt University, Ankara, Türk

Burcu Üner

Ceren Emir Eae University, Izmir, Türkiye

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

Debora Dummer Meira
Federal University of Espírito Santo Vitória-Espírito Santo Brazil

Derya Özsavcı Marmara University, İstanbul, Türkiye

Dhanashree P. Sanap Iyapeeth's College of Pharmacy, Navi Mumbai, Indi

Dinesh Kumar Institute of Technology (BHU), Varanasi, India

Ebru Altuntaş Istanbul University, Istanbul, Türkiye

Efe Doğukan Dincel Istanbul University, Istanbul, Türkiye

Emine Terzi
ra Yıldırım Bayezit University Ankara Türkiye

Emre Kara Hacettepe University, Anakara, Türkiye

Emrah Özakar Atatürk University, Erzurum, Türkiye

Entela Haloci University of Medicine, Tirana, Alban

Gizem Tatar Yılmaz Karadeniz Technical University Trabzon, Türkiyi

Gülberk Uçar Hacettepe University, Ankara, Türkiye

Gülşah Gedik Trakva University, Edirne, Türkiye

Haidar A. Abdulamir Al-Maagl University, Basra, Iraq

Hasan Erdinç Sellitepe Karadeniz Technical University, Trabzon, Türkiye

i. İrem Tatlı Çankaya Hacettene University, Ankara, Türkiye

Kerem Buran versity of Health Sciences, Istanbul, Türkiye

Klodiola Dhamo Aldent University, Tirana, Albania

Laleh Khodaie Tabriz University of Medical Sciences, Tabriz, Irar

Lejla Klepo iversity of Saraieyo, Saraieyo, Bosnia and Herzeoo

Lokman Ayaz Trakva University, Edirne, Türkiye

Long Chiau Ming Sunway University, Sunway City, Malaysi

Maja Ortner Hadžiabdić University of Zagreb, Zagreb, Croatia

Mehmet Gümüştaş Ankara University, Ankara, Türkiye

Mesut Sancar Marmara University, Istanbul, Türkiye

Miloš N. Milosavljević University of Kragujevac, Kragujevac, Serbia

Mirjana Marčetić University of Belgrade, Belgrade, Serbia

Murat Doğan Cumhuriyet University, Sivas, Türkiye

Nasir Idkaidek Petra Universty, Amman, Jordan

Nurdan Tekin

Nurettin Yaylı adeniz Technical University. Trabzon, Türkiy

Ongun Mehmet Saka Ankara University, Ankara, Türkiye

Pablo Miralles Ibarra niversity of Valencia, Burjassot, Spai

Pınar Talay Pınar Yüzüncü Yıl University, Van, Türkiye

Renuka Khatik Washington University in St. Louis, USA

Rukiye Sevinç Özakar Atatürk University, Erzurum, Türkiye

Sakine Tuncay Tanrıverdi Ege University, İzmir, Türkiye

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

Sneha Agrawal h's College of Pharmacy, Navi Mumbai, Mah

Somaieh Soltani Tabriz University of Medical Sciences, Tabriz, Iran

Turgut Taşkın Marmara University, İstanbul, Türkiye

Uğur Karagöz Trakya University, Edirne, Türkiye

Viktorija Maksimova Goce Delcev University Stip, Republic of N. Mar

Vildan Çeliksoy Cardiff University, Cardiff, UK

Yeliz Şahin Ağrı İbrahim Cecen University, Ağrı, Türkiy

Zahraa Amer Hashim Mosul University, Mosul, Iraq

Zarife Nigar Özdemir Kumral Marmara University, İstanbul, Türkiy

Zeina Althanoon Mosul University, Mosul, Iraq

Zoran Zeković University of Novi Sad, Novi Sad, Se



Journal of Research in Pharmacy

An international open-access journal of pharmacy and pharmaceutical sciences

Formerly published as Marmara Pharmaceutical Journal

**ONLINE SYMPOSIUM** 

#### THE FOLK MEDICINAL PLANTS OF TURKEY: AN OVERVIEW

### Gizem EMRE®\*

Marmara University, Faculty of Pharmacy, Department of Pharmaceutical Botany, İstanbul, Turkey.

gizem.bulut@marmara.edu.tr

\*Corresponding and presenting author

Although the term "ethnobotany" was coined at the end of the 1800's by Harshberger, knowledge of the use of wild plants found in our environment as food or medicine has existed for thousands of years. Some of the oldest records of wild plant use date back to ancient civilizations such as the Greek, Egyptian, and Chinese. It contains medicinal, edible, toys, dye, cosmetics, fuel and ornamental plants. Since ancient times people have used plants as a source of medicine. Around 80% of general population in the world use plants to treat several illnesses. Medicinal plants are an important source of current drugs and about 25% of the drugs prescribed worldwide come from plants. Ethnobotanical surveys have played an important role in bringing to light lost information from the past, thus enabling the possible future discovery and use of novel, effective, therapeutic compounds [1-4].

Turkey, is one of the most significant region, has many Anatolian civilizations and therefore this region has various historical and cultural richness. Because of this richness, traditional herbal medicine has an important role in Turkey. Hundres of ethnobotanical studies have been made by researchers in Turkey. For this study, the scientific literature records on the subject were revised [3-8].

As a result, about 1600 taxa are used as medicinal plants. Most of them are wild. 117 families are used in these area. Lamiaceae, Asteraceae, Apiaceae, Fabaceae and Rosaceae are the most common medicinal plant families. The parts of plants mainly used for treating different ailments comprised aerial parts, leaves, flowers, subterranean parts and other parts. The main methods for preparing remedies were decoction, infusion, direct application and crushing. Most were used internally. The local people sometimes also used other ingredients, such as butter, flour, tahina, yoghurt, honey and milk to prepare the remedies. The most frequent types of medicinal use records were gastrointestinal ailments, respiratory tract diseases, skin diseases and cardiovascular diseases. 19 species of Achillea were used for mainly gastrointestinal ailments. 16 taxa of Anthemis were used for mainly gastrointestinal ailments and cold. 30 taxa of Euphorbia's latex was used for warts. One of the most commonly used plants were Hypericum species. During the interviews of ethnobotanical studies, participants shared that they learned about using the oleate of Hypericum species for external wound treatment from their ancestors, emphasizing that it was even used for sword wounds in ancient times. We even observed that many of the participants' kept this oleate in their homes. Female participants over 60 years of age, who contributed to our research in the region, mentioned that the roots of Malva species were previously used to terminate pregnancies when birth control methods were not common, and that their mothers frequently applied this method. Verbascum has over 250 species in Turkey and 30 species of this genus were used for hemorrhoids and rhematism. 10 taxa of Origanum were used for mainly stomach diseases and respiratory system diseases. 37 taxa of *Salvia* was used for cold flu expectorant. For example, *Salvia fruticosa*, which is common especially in eastern parts of the country, is frequently gathered by local people, and is drunk as a tea. Some endemic species were the most consumed herbal teas are cultivated in the gardens of some participants. The informants stated that, *Ecballium elaterium*, *Daphne oleoides* subsp. *oleoides* and *Tamus communis* subsp. *cretica* should be used carefully owing to their dangerous side effects and contra-indications such as oedema, irritation of nasal cavity and redness [3-8].

As a conclusion, plants are still an important part of medicine. Performing ethnobotanical studies could revitalize this bridge of knowledge between old and new generations and help form solid foundation for its preservation. In the meantime, this is also the primary information for the scientific studies which will be made on the medicinal plants and health. Traditional herbal medicines are the natural source for the human health. In addition, they may be a guide for the discovery of the modern medicines.

**Keywords**: Ethnobotany; medicinal plants; folk medicine; Turkey.

#### References

- [1] Emre G, Dogan A, Haznedaroglu MZ, Senkardes I, Ulger M, Satiroglu A, Can Emmez B, Tugay, O. An ethnobotanical study of medicinal plants in Mersin (Turkey). Front Pharmacol. 2021;12:664500. <a href="https://doi.org/10.3389/fphar.2021.664500">https://doi.org/10.3389/fphar.2021.664500</a>.
- [2] Carrió E, Vallès J. Ethnobotany of medicinal plants used in Eastern Mallorca (Balearic Islands, Mediterranean Sea). J Ethnopharmacol. 2012;141(3):1021-1040. https://doi.org/10.1016/j.jep.2012.03.049.
- [3] Bulut G., Haznedaroğlu MZ, Doğan A, Koyu H, Tuzlacı E. An ethnobotanical study of medicinal plants in Acipayam (Denizli-Turkey). J Herb Med. 2017; 10: 64-81. <a href="https://doi.org/10.1016/j.hermed.2017.08.001">https://doi.org/10.1016/j.hermed.2017.08.001</a>.
- [4] Bulut G, Tuzlaci E. An ethnobotanical study of medicinal plants in Turgutlu (Manisa-Turkey). J Ethnopharmacol. 2013; 149: 633–647. <a href="https://doi.org/10.1016/j.jep.2013.07.016">https://doi.org/10.1016/j.jep.2013.07.016</a>.
- [5] Bulut G. Folk medicinal plants of Silivri (İstanbul-Turkey). Marmara Pharm J. 2011; 15: 25–29.
- [6] Bulut G, Tuzlaci E. An ethnobotanical study of medicinal plants in Bayramic (Canakkale-Turkey). Marmara Pharm J. 2015; 19: 269-282.
- [7] Tuzlaci E. Şifa Niyetine Türkiye'nin Bitkisel Halk İlaçları. Alfa Yayınları, İstanbul. 2006.
- [8] Tuzlaci E. Türkiye Bitkileri Geleneksel İlaç Rehberi.İstanbul Tıp Kitapevi, İstanbul. 2016.