



ANADOLU UNIVERSITY  
INSTITUTE OF HEALTH SCIENCES

# European Journal of Life Sciences

Volume: 1 • Issue: 2 • August 2022

ISSN: 2822-5333

## **European Journal of Life Sciences**

### **Owner of the Journal on behalf of Anadolu University**

Prof. Dr. Fuat Erdal

### **Editor in Chief**

Prof. Dr. Gülşen Akalın Çiftçi

### **Editors**

Prof. Dr. Yavuz Bülent Köse

Prof. Dr. Gökalp İşcan

Assoc. Prof. Dr. Mustafa Sinan Kaynak

Assoc. Prof. Dr. Hale Gamze Ağalar

### **Publication Type**

International peer-reviewed journal

### **Publication Frequency**

Triannually

### **Language**

English

### **Website**

<https://dergipark.org.tr/ejls>

### **Publisher**

Anadolu University Institute of Health Sciences

### **Publisher Address**

Anadolu University, Institute of Health Sciences, Yunus Emre Campus, 26470 Tepebaşı/Eskişehir.

Phone: +90 222 320 76 51

E-mail: [sagens@anadolu.edu.tr](mailto:sagens@anadolu.edu.tr)

Web: <https://sbe.anadolu.edu.tr/en>

### **Publishing Services**

Akdema Informatics, Publishing, and Consultancy Trade LLC

Address: Kızılay Mahallesi, Gazi Mustafa Kemal Bulvarı No: 23/8, 06420 Çankaya/Ankara

E-mail: [bilgi@akdema.com](mailto:bilgi@akdema.com)

Phone: +90 533 166 80 80

Web site: [www.akdema.com](http://www.akdema.com)

# European Journal of Life Sciences

## Editorial Board

### Editor in Chief

Prof. Dr. Gülşen Akalın Çiftçi, Anadolu University, Turkey

### Editors

Prof. Dr. Yavuz Bülent Köse, Anadolu University, Turkey

Prof. Dr. Gökalep İşcan, Anadolu University, Turkey

Assoc. Prof. Dr. Mustafa Sinan Kaynak, Anadolu University, Turkey

Assoc. Prof. Dr. Hale Gamze Ağalar, Anadolu University, Turkey

### International Editorial Board

Prof. Dr. Ahmet Özdemir, Anadolu University, Turkey

Prof. Dr. Ali Savaş Koparal, Anadolu University, Turkey

Prof. Dr. Ayşe Tansu Koparal, Anadolu University, Turkey

Prof. Dr. Betül Demirci, Anadolu University, Turkey

Prof. Dr. Bülent Ergun, Anadolu University, Turkey

Prof. Dr. Dilek Ak, Anadolu University, Turkey

Prof. Dr. Duygu Yeniceli Uğur, Anadolu University, Turkey

Prof. Dr. Ebru Başaran, Anadolu University, Turkey

Prof. Dr. Fatih Demirci, Anadolu University, Turkey

Prof. Dr. Göksel Arlı, Anadolu University, Turkey

Prof. Dr. Gülmira Özek, Anadolu University, Turkey

Prof. Dr. İlknur Maviş, Anadolu University, Turkey

Prof. Dr. K. Hüsnü Can Başer, Near East University, Turkish Republic of Northern Cyprus

Prof. Dr. Leyla Yurttaş, Anadolu University, Turkey

Prof. Dr. Mehlika Dilek Altıntop, Anadolu University, Turkey

Prof. Dr. Mehmet Yanardağ, Anadolu University, Turkey

Prof. Dr. Michael Silverman, University of Minnesota, United States of America

Prof. Dr. Mine Kurkcuoglu, Anadolu University, Turkey

Prof. Dr. Mustafa Djamgoz, Imperial College London, United Kingdom

Prof. Dr. Müzeyyen Demirel, Anadolu University, Turkey

Prof. Dr. Nafiz Öncü Can, Anadolu University, Turkey

Prof. Dr. Nalan Gündoğdu-Karaburun, Anadolu University, Turkey

Prof. Dr. Ömer Küçük, Emory University, United States of America

Prof. Dr. Özgür Devrim Can, Anadolu University, Turkey

Prof. Dr. Öztekin Algül, Erzincan Binali Yıldırım University, Turkey

Prof. Dr. Rana Arslan, Anadolu University, Turkey

Prof. Dr. Sinem Ilgın, Anadolu University, Turkey

Prof. Dr. Şükrü Beydemir, Anadolu University, Turkey

Prof. Dr. Şükrü Torun, Anadolu University, Turkey

Prof. Dr. Ümide Demir Özkay, Anadolu University, Turkey

Prof. Dr. Yusuf Özkay, Anadolu University, Turkey

Prof. Dr. Yusuf Öztürk, Anadolu University, Turkey

Prof. Dr. Zafer Asım Kaplancıklı, Anadolu University, Turkey

Assoc. Prof. Dr. Doğan Yücel, Ankara Training And Research Hospital, Turkey

Assoc. Prof. Dr. Halide Edip Temel, Anadolu University, Turkey

Assoc. Prof. Dr. Hülya Karaca, Anadolu University, Turkey

Assist. Prof. Dr. Haydar Bağdatlı, Anadolu University, Turkey

Assist. Prof. Dr. Kamer Tecen Yücel, Anadolu University, Turkey

# European Journal of Life Sciences

## Contents

<b>Morpho-anatomical and palynological properties of endemic <i>Astragalus tmoleus</i> var. <i>bounacanthus</i> (Fabaceae) .....</b>	<b>35</b>
Ayla Kaya	
<b>Capsaicin inhibits proliferation and induces apoptosis in human lung adenocarcinoma A549 cell line.....</b>	<b>46</b>
Merve Tiltay, Aydan Hüseyinli, Gülşen Akalın Çiftçi, İ. Özkan Alataş	
<b>Geographical impact on essential oil composition of endemic <i>Salvia absconditiflora</i> collected from different parts of Turkey .....</b>	<b>55</b>
Ayla Kaya, Süleyman Doğu, Betül Demirci	
<b>Antimicrobial and antioxidant activities of <i>Sideritis lanata</i> L. extracts .....</b>	<b>63</b>
Zeynep Gülcan, Nagehan Saltan, Gökalp İşcan, Mine Kürkçüoğlu, Yavuz Bülent Köse	
<b>Release kinetics of 3D printed oral solid dosage forms: An overview .....</b>	<b>70</b>
Berna Kaval, Engin Kapkın, Mustafa Sinan Kaynak	