

## Res. Asst. PhD Özlem GÜLMEZ



### Personal Information

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**Address:** Atatürk Üniversitesi Fen Fakültesi Biyoloji Bölümü

### International Researcher IDs

ORCID: 0000-0002-7199-4634

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### Education Information

Doctorate, Ataturk University, Fen Fakültesi, Biyoloji, Turkey 2017 - 2023

Postgraduate, Ataturk University, Fen Fakültesi, Biyoloji, Turkey 2013 - 2017

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Antimikrobiyal bor bileşikleri kullanılarak tarihi taş yapılarıdaki biyodeteriorasyonun önlenmesi üzerine araştırmalar, Ataturk University, Fen Fakültesi, Biyoloji, 2023

Postgraduate, Phanerochaete Chrysosporium biyomasının balık yemi olarak kullanılabilme potansiyelinin belirlenmesi, Ataturk University, Fen Fakültesi, Biyoloji, 2017

### Research Areas

Plant Biotechnology, Environmental Biotechnology, Industrial Biotechnology, Microbial Biotechnology, Microbiology

### Academic Titles / Tasks

Research Assistant, Ataturk University, Fen Fakültesi, Biyoloji, 2021 - Continues

### Courses

Sitoloji Laboratuvarı , Undergraduate, 2022 - 2023

Mikrobiyoloji Lab, Undergraduate, 2022 - 2023

Genetik Labratuvarı , Undergraduate, 2022 - 2023

Tohumuz Bitkiler Lab, Undergraduate, 2022 - 2023

Tohumlu Bitkiler lab, Undergraduate, 2021 - 2022  
Omurgasız hayvanlar Lab, Undergraduate, 2020 - 2021  
Omurgalı hayvanlar lab, Undergraduate, 2020 - 2021

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Pseudomonas stutzeri improves the tolerance of Lemna minor to Cu(OH)<sub>2</sub> nanopesticide by regulating the uptake of copper, antioxidant defense mechanisms, and the expression of metacaspase-1, chlorophyllase, and stress-responsive genes**  
Gülmez Ö., Aksakal Ö., Barış Ö., Bayram E.  
Plant Physiology and Biochemistry, vol.203, 2023 (SCI-Expanded)
- II. **Boron-resistant *Alternaria alternata* (OG14) mitigates boron stress by improving physiological and antioxidative response in wheat (*Triticum aestivum* L.)**  
Gülmez Ö., Tiryaki D., Atici Ö., Baris Ö.  
PLANT PHYSIOLOGY AND BIOCHEMISTRY, vol.202, 2023 (SCI-Expanded)
- III. **Syntheses and antibacterial activities of 4 linear nonphenolic diarylheptanoids**  
Demir Ş. B., Seçinti H., Çelebioğlu N., Özdal M., Sezen A., Gülmez Ö., Algur Ö. F., Seçen H.  
TURKISH JOURNAL OF CHEMISTRY, vol.44, no.3, pp.589-601, 2020 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Purification and characterization of glutaminase and urease-free L-asparaginase from *Bacillus atrophaeus* with acrylamide reduction potential**  
Özdal M., Gülmez Ö., Gökçe E., Algur Ö. F.  
INTERNATIONAL JOURNAL OF BIOLOGY AND CHEMISTRY, vol.17, no.1, pp.13-22, 2024 (ESCI)
- II. **Potential Use of Wild Legume Plant Exudates for the Prevention of *Fusarium oxysporum* in Chickpea (*Cicer arietinum* L.)**  
Gülmez Ö., Şengül Köseoğlu M., Kantar F., Algur Ö. F.  
Journal of Food and Nutrition , vol.3, no.1, pp.1-10, 2024 (Peer-Reviewed Journal)
- III. **Determination of the Potential for use of Plant Essential Oils as a Fungicide Against *Fusarium Oxysporum* (OG10)**  
Tan E., Gezgincioğlu E., GÜLMEZ Ö., BARIŞ Ö.  
Heighten Science Publications Corporation, vol.7, 2023 (Peer-Reviewed Journal)
- IV. **Investigation of The Protective Properties of Bacteria (*Agrococcus Citrus*) and Fungus (*Fusarium Oxysporium*) Pigments in Lettuce Plant Exposed to UV Stress**  
GÜLMEZ Ö., TIRYAKI D., BARIŞ Ö.  
TURKISH JOURNAL OF AGRICULTURE: FOOD SCIENCE AND TECHNOLOGY, vol.11, 2023 (Peer-Reviewed Journal)
- V. **Determination of the Effect of Indole Acetic Acid (IAA) Produced from Edible Mushrooms on Plant Growth and Development**  
Tiryaki D., Gülmez Ö.  
Anatolian Journal of Biology, vol.2, no.2, pp.17-20, 2021 (Peer-Reviewed Journal)
- VI. **Investigation of UV Protection of Pigments Obtained from Different Bacteria on Wheat Plan**  
Gülmez Ö., Tiryaki D.  
Anatolian Journal of Biology, vol.2, no.2, pp.21-24, 2021 (Peer-Reviewed Journal)
- VII. **Determination of Chemical Constituents and Bioactive Properties of Alcohol Extracts of *Pleurotus sajor-caju* and *Pleurotus ostreatus***  
GÜLMEZ Ö., ÖZDAL M., ALGUR Ö. F., YILMAZ B.  
İğdır Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.11, no.3, pp.1734-1741, 2021 (Peer-Reviewed Journal)
- VIII. **Investigation of the potential use of *Euphorbia latex* as an insecticide in biological control against**

### **Dendroctonus micans**

Gülmez Ö., Albayrak İskender N., Şenol H., Algur Ö. F.

Anatolian Journal of Biology, vol.1, no.1, pp.38-44, 2021 (Peer-Reviewed Journal)

- IX. **Determination of the protective effects of fungus species belonging to the genus Pleurotus against the longevity toxicity of guaiazulene in Drosophila melanogaster (Oregon R).**  
Uysal H., Çelik H., Kızılet H., Yılmaz B., Özdal M., Gülmez Ö.  
Dros. Inf. Serv., vol.103, no.1, pp.1-8, 2020 (Peer-Reviewed Journal)
- X. **Reduction of phytotoxic effect of cadmium heavy metal by biomass of edible fungus, Armillaria tabescens**  
Gülmez Ö., Tiryaki D., ALGUR Ö. F., ŞENGÜL KÖSEÖĞLU M., Gezginçioğlu E.  
Iranian Journal of Plant Physiology, vol.10, no.3, pp.3265-3272, 2020 (Scopus)
- XI. **ANTIBACTERIAL AND ANTIOXIDANT ACTIVITY OF MYCELIAL EXTRACTS OF DIFFERENT PLEUROTUS SPECIES**  
Özdal M., Gülmez Ö., Gür Özdal Ö., Algur Ö. F.  
Food and Health, vol.5, pp.12-18, 2019 (Peer-Reviewed Journal)
- XII. **Bazı Bitkilerin Etil Alkol Ekstrelerinin Antimikrobiyal Özelliklerinin Belirlenmesi**  
Gülmez Ö., Algur Ö. F.  
Doğu Fen bilimleri dergisi, vol.2, no.2, pp.54-60, 2019 (Peer-Reviewed Journal)
- XIII. **Toxicological evaluation of submerged liquid culture from Phanerochaete chrysosporium mycelium on human blood cells: cytotoxicity, genotoxicity and oxidative damage**  
Geyikoğlu F., Çeriğ S., Özdal M., Koç K., Algur Ö. F., Yıldız Deniz G., Gülmez Ö.  
International Journal of Secondary Metabolite, vol.4, no.3, pp.319-329, 2017 (Peer-Reviewed Journal)

### **Books & Book Chapters**

#### **I. usage of lichens in biotechnology**

Gülmez Ö.

in: Biotechnology in Action , Doç Dr. Murat Özdal, Doç. Dr. Sümeyra Gürkök, Editor, Efe Academy Publishing , İstanbul, pp.69-78, 2023

#### **II. Fungal Growth and Pathology**

Gülmez Ö., Barış Ö.

in: Fungal Reproduction and Growth, Dr. Sadia Sultan and Dr. Gurmeet Kaur Surindar Singh, Editor, IntechOpen, London, pp.134-140, 2022

### **Refereed Congress / Symposium Publications in Proceedings**

#### **I. Investigation of fungal biomass growth parameters in iron and chrome mineral processing wastes**

BARIŞ Ö., GÜLMEZ Ö., AYDOĞAN Y.

5th International Conference on Food, Agriculture and Animal Sciences (ICOFAAS 2023), Antalya, Turkey, 23 November 2023

#### **II. Evaluation of the effects of various metals on the production of pigments in cultures of Fusarium oxysporium**

BARIŞ Ö., GÜLMEZ Ö., TÜRK Ö.

5th International Conference on Food, Agriculture and Animal Sciences (ICOFAAS 2023), Antalya, Turkey, 23 November 2023

#### **III. GLUTAMINASE AND UREASE-FREE ANTITUMOR EFFECTIVE L-ASPARAGINASE-PRODUCING MICROORGANISMS ISOLATION**

Özdal M., Gülmez Ö., Gökçe E.

st International Congress On Natural Sciences (ICNAS-2021), Erzurum, Turkey, 10 September - 12 November

2021, pp.260-264

**IV. Reduction of Phytotoxic Effect of Cadmium Heavy Metal by Biomass of Edible Fungus, *Armillaria Tabescens***

Gülmez Ö.

icanas 2019, Ağrı, Turkey, 17 - 19 June 2019, pp.135-136

**V. *Lactarius indigo* Mantarında Bulunan ve Ömür Uzunluğunu İnhibe Eden Guazilen'e Karşı *Pleurotus sajor-caju* ve *Pleurotus osteratus* Mantarları**

Gülmez Ö.

International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2018), Ankara, Turkey, 26 - 27 April 2018, pp.485

**VI. White Root Basidiomycete *Trametes versicolor*: Safety, Antioxidant and Cytotoxic Activities**

Gülmez Ö.

3 rd International Multidisciplinary Symposium on Drug Research and Development - DRD 2017, Erzurum, Turkey, 5 - 07 October 2017, pp.100-101

**VII. Anti QS (Quorum Sensing ) Aktivitesine Sahip Bitki Kökenli Maddeler ve Biyoteknolojik Uygulamaları**

Gülmez Ö.

1.ULUSAL BİTKİ FİZYOLOJİSİ SEMPOZYUMU , Erzurum, Turkey, 1 - 04 September 2015, pp.32

## Supported Projects

ATICI Ö., GÜLMEZ Ö., Project Supported by Higher Education Institutions, Liken Ekosisteminden İzole Edilen Fungusların Bitkide Tuz ve Ağır Metal Stresine Karşı Koruyucu Etkilerinin Araştırılması, 2023 - 2024

TAŞKIN M., GÜLMEZ Ö., AYDOĞAN M. N., Project Supported by Higher Education Institutions, Organomineral İçerikli Küllerin Mikrobiyal Çözündürülmesine Yönelik Bir Yöntem Ve Bu Yöntemin Kullanıldığı Bir Sistem, 2022 - 2024

BARIŞ Ö., AYDOĞDU Y., GÜLMEZ Ö., TÜRK Ö., Project Supported by Higher Education Institutions, Önemli bir maden işleme atığı olan cürufun biyolojik süreçler ile tarımda kullanım potansiyelinin araştırılması, 2023 - 2023

ACAR İ., GÜLMEZ Ö., BARIŞ Ö., Project Supported by Higher Education Institutions, Kromit Artıklarından Biyoliç ile Nikel Kazanım Potansiyeli, 2021 - 2022

Özdal M., Gülmez Ö., Gökçe E., Project Supported by Higher Education Institutions, PROJE BAŞLIĞI: GLUTAMİNAZ VE ÜREAZ İÇERMEYEN ANTİTÜMÖR ETKİLİ LASPARAGİNAZ ÜRETEN MİKROORGANİZMALARIN İZOLASYONU KAREKTERİZASYONU VE ENZİM ÜRETİM OPTİMİZASYONU, 2019 - 2021

## Patent

Aydoğan M. N., Gülmez Ö., ORGANOMİNERAL İÇERİKLİ KÜLLERİN MİKROBİYAL ÇÖZÜNDÜRÜLMESİNE YÖNELİK BİR YÖNTEM VE BU YÖNTEMİN KULLANILDIĞI BİR SİSTEM (PCT başvuru), Patent, CHAPTER C Chemistry; Metallurgy, The Invention Recourse Number: PCT/TR2021/051271 , Standard Registration, 2021

Aydoğan M. N., Gülmez Ö., TERMİK SANTRALLERDE YAKILAN ORGANİK ATIKLAR VE TAVUK GÜBRESİ KÜÜLERİ GİBİ ORGANOMİNERALLERİN MİKROBİYAL BİYODEGRADASYONU VE OLUŞAN ÜRÜNLERİN SIFIR HEDEFİYLE EKONOMİYE KAZANDIRILMASI , Patent, CHAPTER A Human Needs, The Invention Recourse Number: FFM 2020 8438 , Standard Registration, 2020

## Scientific Refereeing

CUMHURİYET SCIENCE JOURNAL, Journal Indexed in AHCI, October 2022

African Journal of Agricultural Research , Other Indexed Journal, September 2022

JOURNAL OF PLANT BREEDING AND CROP SCIENCE (JPBCS), Journal Indexed in AHCI, August 2022

african journal of agriculture resarch , Other journals, April 2022

Anatolian journal of biology, Other Indexed Journal, December 2021  
African Journal of Agricultural Research, Other journals, December 2021  
Türk Tarım ve Doğa Bilimleri Dergisi, Other Indexed Journal, December 2021  
Anatolian Journal of Biology, Other journals, December 2021  
AFRICAN JOURNAL OF AGRICULTURAL RESEARCH, Journal Indexed in AHCI, November 2021  
AFRICAN JOURNAL OF MICROBIOLOGY RESEARCH, Journal Indexed in SCI-E, September 2021  
JOURNAL OF MEDICINAL PLANTS RESEARCH, Journal Indexed in AHCI, June 2021  
Nevşehir Bilim ve Teknoloji Dergisi, Other Journals, April 2021

## **Metrics**

Publication: 25  
Citation (WoS): 5  
Citation (Scopus): 4  
H-Index (WoS): 1  
H-Index (Scopus): 1